



PUBLIC DISCLOSURE STATEMENT

E-SMART SOLAR


**ORGANISATION CERTIFICATION
CY2022**

Australian Government
Climate Active
Public Disclosure Statement



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	E-Smart Solar
REPORTING PERIOD	1 January 2022 – 31 December 2022 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>Signature here </p> <p>Dean Edmonds Founder & Managing Director 16/11/2024</p>



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

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Version March 2023.



1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	81 tCO ₂ -e
CARBON OFFSETS USED	100% VCUs
RENEWABLE ELECTRICITY	0%
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	N/A (small organisation pathway)

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2. CERTIFICATION INFORMATION

Description of certification

This inventory has been prepared for the financial year from 1 January 2022 to 31 December 2022 and covers the business operations of E-Smart Solar ABN 12 600 689 361.

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 all operations which are controlled by E-Smart Solar.

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

- Climate Active Standard for organisations
- The GHG 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). No perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆) or nitrogen trifluoride (NF₃) were detected within the operational boundary. All emission sources have been expressed as carbon dioxide equivalents (CO₂-e) using relative global warming potentials (GWPs).

Organisation description

E-Smart Solar was founded in 2011, and initially traded as E-Smart Electrical Services. However, with increasing demands for solar installations, this soon became the main focus of the business.

In 2011, E-Smart focused purely on solar solutions for E-Smart Solar customers and restructured to E-Smart Solar Pty Ltd.

E-Smart Solar are a team of qualified electricians and are Clean Energy Council Accredited installers and Network-level members; experienced and qualified in the design and installation of grid connect, hybrid (battery) and stand-alone solar power systems.

E-Smart Solar provide solar solutions for both residential and commercial clients across Sydney, as well as everywhere in the Blue Mountains of NSW. This is from Mudgee to Bathurst, and from Penrith and surrounding suburbs.

3.EMISSIONS BOUNDARY

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

Quantified

Accommodation and facilities
Climate Active Carbon
Neutral Products and
services
Computer and Electrical
Components
Electricity
Food & Catering
ICT services and equipment
Machinery and vehicles
Postage, courier and freight
Products
Professional Services (incl.
advertising and promotion)
Staff clothing
Telecommunications
Transport (Air)
Transport (Land and Sea)
Transport Fuel
Water
Waste (Landfill & Recycling)

Non-quantified

N/A

Outside emission boundary

Excluded

Equipment and PV
systems installed for
clients

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

As a company committed to the development of renewable energy technologies, including solar PV, E-Smart Solar is wholeheartedly committed to the environment and sustainability.

At E-Smart Solar, we not only encourage our clients to invest in clean technologies, but we also have developed an emission reduction strategy that sits in our sustainability reporting. The strategy includes the following key points:

We are reporting an increase of our total footprint from 47 tCO₂-e in CY2021 to 81 tCO₂-e for CY2022. Our carbon footprint for CY2020 was 55.3 tCO₂-e.

Our largest contributor is now business travel with 46.5% of the total contribution, with an increase of 30.7% compared to CY2021. The second largest contributor is products, materials and equipment with 26% with a large increase compared to previous reporting period. But we managed to reduce our emissions from postage, courier & logistics by 61.5%. Our emissions from machinery and vehicles are 20.78 tCO₂-e for CY2022.

2025 emissions reduction targets:

By CY2025, we are committed to a 10% reduction in emissions from the following areas:

- business travel
- products, materials and equipment
- machinery and vehicles
- land and sea transport

Our emissions from transport (land and sea) represent a footprint of 35.9 tCO₂-e for CY2022. We are considering the purchase of an EV ute and company vehicle if available on the market within the next 2 years (by 2026). We try to optimise our client site visits and reduce unnecessary transport. For our scope 3 transport emissions, we are exploring options with carbon neutral freight providers and Australia Post. **We have a target of reducing our transport-related emissions by 30% by 2028.**

The footprint from professional services is at 9.56 tCO₂-e for CY2022. **We have a target of reducing our professional services related emissions by 75% by 2028.** We work closely with our suppliers to ensure sustainability is part of our selection criteria. We encourage our suppliers in making positive environmental choices, and support them in integrating those choices into everyday operations. And wherever possible, we'll help our suppliers reduce their carbon footprint. We are exploring ways to improve the sustainability of our procurement and select suppliers who are Climate Active certified for their products or services including telecommunications, IT and cloud services, freight and logistics, accounting services, office supplies including paper, food and catering. We can potentially save up to 10 tCO₂-e by switching to Climate Active certified providers (under the Climate Change scheme methodology).

Community Leadership and Advocacy:

We are committed to developing solutions that are environmentally friendly, such as moving from paper-based billing to more flexible payment processes. Working with our industry and our community, we not only support the development of climate-friendly practices, but also adopt them to deliver ongoing, positive change.

Emissions reduction actions

We installed a 17kWp PV system on the roof of the workshop/office space allowing us to use self-produced power and export power to the grid.

We want to leave a legacy that goes beyond our business and that extends to our children, and their children. As such we're 100% committed to monitoring and measuring our business activities to ensure a constant reduction in the size of our environmental footprint.

Environmental consideration is a key element of our team culture. We promote the efficient use, reuse and recycling of resources, as well as the minimisation of waste. We also provide our team with the tools they need to work electronically, minimising our reliance on paper.

We work closely with our suppliers to ensure sustainability is part of our selection criteria. We encourage our suppliers in making positive environmental choices, and support them in integrating those choices into everyday operations. And wherever possible, we'll help our suppliers reduce their carbon footprint.

We're committed to developing solutions that are environmentally friendly, such as moving from paper-based billing to more flexible payment processes. Working with our industry and our community, we not only support the development of climate-friendly practices, but also adopt them to deliver ongoing, positive change.

At E-Smart Solar, we're here for the long haul. We want to leave a legacy that goes beyond our business and that extends to our children, and their children. As such we're 100% committed to monitoring and measuring our business activities to ensure a constant reduction in the size of our environmental footprint.

5. EMISSIONS SUMMARY

Emissions over time

Emissions since base year		Total tCO ₂ -e (without uplift)	Total tCO ₂ -e (with uplift)
Base year:	2020	53.81	56.50
Year 1:	2021	44.53	46.76
Year 2:	2022	76.23	80.04

Significant changes in emissions

We are reporting an increase of our total footprint from 47 tCO₂e in CY2021 to 81 tCO₂e for CY2022. Our carbon footprint for CY2020 was 55.3tCO₂e.

Our largest contributor is now business travel with 46.5% of the total contribution, with an increase of 30.7% compared to CY2021. The second largest contributor is products, materials and equipment with 26% with a large increase compared to previous reporting period. But we managed to reduce our emissions from postage, courier and logistics by 61.5%. Our emissions from machinery and vehicles are 20.78 tCO₂-e for CY2022.

Use of Climate Active carbon neutral products, services, buildings or precincts

- This assessment and Climate Active submission was prepared with the assistance of Pangolin Associates and these services are also carbon neutral.
- Powershop Climate Active Carbon Neutral electricity was purchased during the period.

Certified brand name	Product/service used
Pangolin Associates	Consulting services
Powershop	Electricity

Emissions summary

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

Emission category	Scope 1 emissions (tCO ₂ -e)	Scope 2 emissions (tCO ₂ -e)	Scope 3 emissions (tCO ₂ -e)	Total emissions (t CO ₂ -e)
Accommodation and facilities	0.00	0.00	1.01	1.01
Climate Active Carbon Neutral Products and Services	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00
Food	0.00	0.00	2.31	2.31
ICT services and equipment	0.00	0.00	1.11	1.11
Machinery and vehicles	0.00	0.00	20.78	20.78
Postage, courier and freight	0.00	0.00	0.16	0.16
Products	0.00	0.00	0.00	0.00
Professional Services	0.00	0.00	9.56	9.56
Transport (Air)	0.00	0.00	1.06	1.06
Transport (Land and Sea)	28.25	0.00	6.94	35.19
Waste	0.00	0.00	2.85	2.85
Water	0.00	0.00	2.13	2.13
Working from home	0.00	0.00	0.08	0.08
Total emissions	28.25	0.00	47.98	76.23

Uplift factors

An uplift factor is an upwards adjustment to the total carbon inventory to account for relevant emissions that cannot be reasonably quantified or estimated. This conservative accounting approach helps ensure the integrity of the carbon neutral claim.

Reason for uplift factor	tCO ₂ -e
A compulsory additional 5% of the total to be added for small organisations	3.81
Total emissions footprint to offset <i>(total emissions from summary table + total of all uplift factors)</i>	80.04

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emission to offset is 81 t CO₂-e. The total number of eligible offsets used in this report is 81. Of the total eligible offsets used, no offsets **were** previously banked and 81 offsets were newly purchased and retired. 0 are remaining nor have been banked for future use.

Co-benefits

The Bundled Solar Power Project, developed by SolarArise India Projects Pvt Ltd, generates clean electricity through solar energy — a renewable resource. The project is a bundled activity which includes the installation of a 120 MW solar project in various states of India through special-purpose vehicles.

Eligible offsets retirement summary

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Verified Carbon Units (VCUs)	81	100%

Offsets retired for Climate Active 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 (%)
Bundled Solar Power Project by Solararise India Projects PVT. LTD.	VCU	Verra	09/04/2024	10730-245055320-245055399-VCS-VCU-997-VER-IN-1-1762-26042018-31122018-0	2018	-	80	0	0	80	98.8%
Bundled Solar Photovoltaic Project by ACME	VCU	Verra	22/08/24	11045-273828353-273828353-VCS-VCU-997-VER-IN-1-1753-01022020-31122020-0	2020	-	1	0	0	1	1.2%
Total eligible offsets retired and used for this report										81	
Total eligible offsets retired this report and banked for use in future reports									0		

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 **market-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	0	0	0%
Total non-grid electricity	0	0	0%
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	4,342	4,147	0%
Total renewable electricity (grid + non grid)	0	0	0%
Total grid electricity	4,342	4,147	0%
Total electricity (grid + non grid)	4,342	4,147	0%
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	4,342	4,147	
Scope 2	3,834	3,662	
Scope 3 (includes T&D emissions from consumption under operational control)	508	485	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	

Total renewables (grid and non-grid)	0.00%
Mandatory	0.00%
Voluntary	0.00%
Behind the meter	0.00%
Residual scope 2 emissions (t CO₂e)	3.66
Residual scope 3 emissions (t CO₂e)	0.48
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂e)	0.00
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂e)	0.00
Total emissions liability (t CO₂e)	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)
NSW	4,342	4,342	3,170	261	0	0
Grid electricity (scope 2 and 3)	4,342	4,342	3,170	261	0	0
NSW	0	0	0	0		
Non-grid electricity (behind the meter)	0	0	0	0		
Total electricity (grid + non grid)	4,342					

Residual scope 2 emissions (t CO₂-e)	3.17
Residual scope 3 emissions (t CO₂-e)	0.26
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	0.00
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO₂-e)	0.00
Total emissions liability	0.00

Climate Active carbon neutral electricity products

Climate Active carbon neutral electricity product used	Electricity claimed from Climate Active electricity products (kWh)	Emissions (kg CO ₂ -e)
Powershop	4,342	0
<i>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.</i>		

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
<i>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.</i>		

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources have been assessed as relevant, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. 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.

N/A - no relevant emission sources were non-quantified in this reporting period.

APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

Excluded emission sources

The below emission sources have been assessed as not relevant to this organisation'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						Justification
Equipment and PV systems installed for clients	Y	N	N	N	N	These emissions associated with this source are the responsibilities of the clients of E-Smart Solar and would fall under their Scope 3 emissions.



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