

Ushering in a low carbon future

Contributions and achievements of Carbon Neutral Adelaide Partners



Carbon Neutral Adelaide Partners

Architecture, design, landscaping, construction

BB Architects

dsquared Consulting Emma Sadie Thomson Ensemble Studios

Frenchenviro

Fulton Hogan

Goodhouse Architecture

Hames Sharley Lumen Studio Northern Edge

Oxigen Studio Open

SuHo (Sustainability House)

Thomson Rossi

Warwick O'Brien Architects

Wax Design

Associations and advocacy

1 Million Women

100% Renewables for SA

Adelaide Sustainable Building Network Adelaide Sustainability Association

Australian CleanTech

ASCDRI Bike SA Christie Walk

Climate-KIC Australia Committee for Adelaide Community Energy Action SA

Conservation SA

Doctors for the Environment Australia Energy Efficiency Council of Australia Green Building Council of Australia Greening Australia South Australia

ICLEI Oceania - Local governments for sustainability

Nature Foundation SA

Property Council of Australia (SA)

Renew

Renew Adelaide

Renewable Cities Australia

Tim Jarvis Trees for Life

Building and civic products

AFA Air Ametalin Aristore

Downer EDI Works Eco Industrial Supplies EcoUrbane Building Group Green Energy Insulation

Greenplate

Green Frog Systems Kingspan Insulation Seeley International

Education

ClimateClever

Meridian Vocational College

St Aloysius College University of Adelaide

University of South Australia's Research Node

for Low Carbon Living Makerspace Adelaide

Youth Inc. Enterprise Academy

Energy systems and solutions

369 Labs

AA Energy Consulting Accumulus Energy Adelaide Heat Pumps Adelaide Solar Services Adelaide Solar Systems Alerton Australia Allume Energy

Australian Energy Foundation

Buddy Platform

Cherry Energy Solutions

Cool or Cosy

CORENA - Citizens Own Renewable Energy Network

Australia

Demand Manager
Dematec Automation

Ecovantage
EfficientSee
Energie Australia
Energy Focus
Enerven

Enpro EnviroTech

Enzen Fohat

Generate Energy (GNR8NRG)

Glaciem Cooling

lo Energy

Lighting & Integration

Living Energy

MAC Energy Efficiency Group Off-Grid Energy Australia

Planet Ark Power Resonant Solutions Schneider Electric

Carbon Neutral Adelaide Partners

Shine Hub Siemens

SIMEC ZEN Energy

Sol Energy

Solar Storage Australia

Solar Warehouse Australia

SolarQuotes

SunEnergy Company

Suntrix

Tandem Energy

Tempus Energy

The Solar Project

Wescombe Electrical

Engineering services

AECOM

Aurecon

CAPS

Cundall

Evoegy

GPA Engineering

Hatch

Lucid Consulting

Mott MacDonald

Shoal

WSP

Events, venues and tourism

Adelaide Convention Centre

Adelaide Festival

Austin Bloom

Beer and BBQ Festival

Gogo Events

International Visualisation Centre/Black Eagle Café

Mister RYE

PureSA

Square Mile Tours

WOMADelaide

SKYCITY Entertainment Group

Stone & Chalk

Financial services

Bank Australia

Eureka Environmental Upgrade Finance

Statewide Super

Food, wine and hospitality

BBQ Buoys

Cafe Troppo

Hither & Yon

Pedla

Packwise

The Foodprint experience

Government

Adelaide & Mt Lofty Ranges NRM Board

Adelaide Central Market Authority

City of Adelaide

CitySwitch Green Office

Department for Education

Department for Environment and Water

SA Police

SA Water

South Australian Museum

South Australian Tourism Industry Council

Legal services

Wallmans Lawyers

Marketing, communications and digital

Atomix

Fuller Brand Communications

Printing and office supplies

Boileau

Bowden Print Group

Eco Office Supplies

Finsbury Green

Fuji Xerox Australia

Real estate and property

Anvil Capital

JLB

Knight Frank

Property Console

The Culshaw Group of Companies

Urban Ecology Australia

Social and health services

Nunkuwarrin Yunti of South Australia

St John's Youth Services

Treasure Boxes

Uniting Communities

Your Nursing Agency

Sustainability and carbon consultancy

Aboriginal Carbon Fund

Biodiverse Carbon Conservation

Changing Weather

ClimateWorks Australia

Cminus

Go Neutral

Pangolin Associates

Seed Consulting Services

Sigma Global

Carbon Neutral Adelaide Partners

South Pole

Strategy.Policy.Research

Sustainable Business Consultants

Trellis Technologies

Technology, IT and audiovisual

AZZO

Microsoft

Orbitel

Ricoh Australia

SpiralData

Timelapse Adelaide

Transport solutions

Beam Mobility Australia

Adelaide Festival

EcoCaddy

Flexicar

Fonzarelli

GoGet

H2U – the Hydrogen Utility™

Hyundai

Mister RYE

My Car

Neuron Mobility

Pure SA

Stigo Bikes

Zero Automotive

Waste solutions and circular economy

Adelaide Green Clean

Biobag Australia

Jeffries Group

KESAB environmental solutions

Lifecycles

OzHarvest SA

Peakfresh

Rawtec

Veolia

Partners who are certified carbon neutral

We are proud to acknowledge partners who have been certified carbon neutral by Climate Active, Climate Neutral, Carbon Trust and Toitu Envirocare.

Climate Active



Bank Australia

City of Adelaide

Cundall Australia

Dsquared consulting

Fuller Brand communications

Hither & Yon

Packwise

Sustainable Business Consultants

Shoal Group

Stone & Chalk

Uniting Communities



Adelaide Festival

Climate Neutral

Beam mobility

Carbon Trust

Mott Macdonald

Toitu Envirocare

SKYCITY Entertainment Group

Ambassador

Winner
Community
Leadership

Finalist
Achievement in
Built Environment

CHRISTIE WALK

Model eco city development dramatically reduces energy use

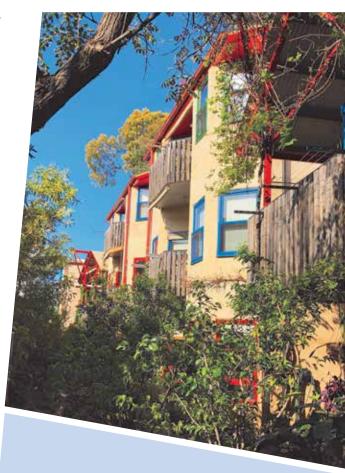
Initiated by Urban Ecology Australia in 1999 as a demonstration project, Christie Walk is home to 40 residents just south of the Adelaide Central Market. The 27 low-impact apartments and townhouses provide affordable environmentally-conscious living on a half-acre site in the heart of the city. Solar power, smart energy, natural heating and cooling, good insulation and large-scale rainwater storage are among the initiatives that transformed the site into an award-winning showcase, inspiring thousands of visitors each year to take their own steps towards carbon neutral living.

Today, 91% of the community's energy needs are generated on site. Technology upgrades since 2017 have reduced an already low-level of electricity imports by a further 80%. Through an ongoing focus on minimising the carbon footprint, annual CO_2 emissions are around one tonne per resident compared to the Australian average of 17 tonnes, an impressively low output for what is – but doesn't feel like – high-density living.









"For 30 years Urban Ecology Australia Inc has led the ecocity revolution, locally and globally, with a vision of vibrant, equitable and ecologically sustaining communities."

Brian Loffler, Environmental Planner







Winner

Achievement in Energy or the Built Environment

SUNTRIX & ALLUME

Unlocking shared solar for residents of the City of Adelaide

In a new partnership Suntrix and Allume Energy have introduced the application of 'SolShare' in Adelaide apartment complexes, enabling power generated from a rooftop solar system to be shared between multiple dwellings within the same building. Commissioned at Hurtle Square early in 2021, the two SolShare systems in combination with a high performing 62kWp solar array, facilitate smart distribution of clean energy to participating units within the apartment building. This technology monitors the demand of each residence on site and optimises the solar delivery based on who needs the energy at any point in time, while ensuring every apartment receives the same amount each month.

With SolShare, the optimised solar usage results in a reduction of grid energy usage of approximately 100,740 kWh per year - the equivalent of saving approximately 51 tonnes of carbon dioxide from entering the atmosphere.

Suntrix and Allume offer a technology that is future ready and can integrate battery technology and electric car charging stations into its networks.









"This technology and integration into our local electricity network opens new opportunities in reaching carbon neutrality in the City of Adelaide."

William Anstee, Project Manager







Finalist

Achievement in Energy or the Built Environment

UNIVERSITY OF ADELAIDE

More than a renewable energy system

The Roseworthy Solar Farm and Energy Storage Project is a hands-on demonstration of the University of Adelaide's living laboratory concept. The 1.2MW system utilises two different battery chemistries, coupled with a smart- microgrid to supply the campus with almost half of its energy needs. This one-of-a-kind project will offset over 46% of the Roseworthy campus' annual electricity requirements through its embedded renewable energy system. Future projections see the project producing enough electricity over its lifetime to power 283,708 South Australian homes for a year. This is equivalent to an emissions reduction of approximately 15,524 tonnes of CO₂-e.

As just one in a suite of low carbon initiatives, it is a highly effective renewable energy system that also creates opportunity for staff and students to test research ideas, gather data and experience the latest in low carbon innovations. The demonstration of a 'Distributed Generation Technologies (DGTs) and Microgrid' creates cutting edge learning and innovation opportunities for students, lecturers and advanced researchers in engineering, cyber security, and power quality.







"This is the largest solar project in the University's history and a key strategy under the Campus Sustainability Plan, which outlines our commitment to decreasing the environmental impact of our Operations."

Bruce Lines, Chief Operating Officer, University of Adelaide







Winner

Achievement in Low Carbon Transport

ZERO AUTOMOTIVE

CARBON NEUTRAL ADELAIDE AWARDS 2021

Battery electric 4x4 LandCruiser light vehicles for mining & industry

ZERO Automotive has created an Australian-built, solar chargeable, underground-ready, battery electric light vehicle (bELV) to equip mining companies in their journey to zero emissions.

ZERO Automotive has supplied six battery electric light vehicles to the mining industry in Australia. Each vehicle will eliminate around 20t of CO₂ emissions per year.

Innovation behind these electric vehicles includes the introduction of Lithium Titanate Oxide (LTO) batteries, and the introduction of a variable regeneration feature that allows for the vehicle to hold speed without using mechanical brakes, reducing the risk of brake failure and wear. ZERO Automotive has also cleverly reduced the cost of their electric vehicles by modularising the electric drive train components so they are decoupled from the chassis/body. When the latter wears out it can be replaced by transferring the electric drive train, which can bring the cost of the total system under that of the diesel equivalent.





"We believe in doing better for our future. That future involves making better decisions for our environment."

David Mitchell, Founder and Managing Director







Finalist Achievement in

Achievement in Low Carbon Transport

NEURON MOBILITY

Reducing Adelaide's reliance on cars: emission-free e-scooters and e-bikes

Neuron Mobility is a leading shared e-scooter company and micromobility technology developer offering the people of Adelaide a virtually emission-free way to move about the city. Striving to limit their environmental footprint, Neuron Mobility uses carbon neutral electricity, responsibly recycles their retired devices and batteries through EcoCycle, and optimises their operational routes. Their e-scooters are fully modular, allowing them to repair or replace individual parts, increasing the lifespan of their devices to 2-5x that of other e-scooter companies.

As of October this year 947,284 certified carbon neutral kms have been travelled in Adelaide on Neuron Mobility devices. With more than 42% of these rides replacing a trip that would have been made by car, this has resulted in an estimated 10,4915kg of CO₂e emissions avoided or the equivalent of 42,969 litres of petrol.







"We're proud to support Adelaide's congestion and emissions goals by offering a sustainable transport solution that has helped Adelaide avoid almost 105,000kg of CO₂."

Richard Hannah, Head of Australia and New Zealand, Neuron Mobility







Winner-Start Up

Achievement in Circular Economy

MISTER RYE

South Australian rye benefits the circular economy with innovative drinking straws

Mister RYE is the first rye drinking straw to contribute to the circular economy. Working with organic certified South Australian farmers, Mister RYE uses the by-product of the cereal rye crops to replace plastic straws. Founder Marion Vigot is a French entrepreneur who moved to Australia 3.5 years ago to focus on sustainability and positively influence the future of packaging. Since its development, Mister RYE has diverted 60,000 single use plastic straws from landfill and the environment.

As a byproduct of the grain production that grows only with natural rainfall, these innovative rye straws do not require any additional energy to produce, and provide additional employment to the rural SA farming families. All products are processed by hand and can be returned to the soil after use, allowing for minimal carbon footprint and for new resources to grow again in regenerated soil.







"There is no limit to what you can do with composting."





Winner-Project

Achievement in Circular Economy

UNIVERSITY OF ADELAIDE

Compostables on campus reduces landfill and improves campus soil

The University of Adelaide launched its highly effective 'Compostables on Campus' campaign in Semester 1 to tackle single-use plastics, increase organic recycling rates and promote a more circular campus. Organic waste from campus is repurposed into landscape products by their service providers, Jefferies and Pete's Soils, and is returned as soils and mulch to help improve the campus landscape.

As part of the campaign, food and beverage retailers at the University's three campuses switched their packaging to compostable options during Semester 1 2021 through changes to lease conditions. The campaign resulted in a 59% increase of organic recycling compared to the same time in 2020. During this time, the University avoided sending 27.7 tonnes of waste to landfill, equal to 44.32 tonnes of carbon. Creative intervention was adopted to communicate the campaign messages to staff and students in new ways.







"The Compostables on Campus campaign shows the University's ongoing efforts to leverage sustainable change across leasing and procurement, facilities management, resource recovery partners and staff and student behaviour for a more circular campus."

Jeremy Kwan, Director Strategic Portfolio Management







Winner-Project

Innovation for a Low Carbon Economy

GPA ENGINEERING

Hydrogen production and blending demonstration facility

GPA Engineering strives to be a key player in the development of the hydrogen industry in Australia. GPA was proud to be part of the first electrolysis and renewable gas blending project in the country, completing the engineering design for Hydrogen Park SA (HyP SA) hydrogen production and blending facility in Tonsley, SA. The Australian-first project is a 5-year demonstration of introducing 5% renewable hydrogen to natural gas in the existing gas network, as well as providing 100% renewable hydrogen to industry throughout the country.

The introduction of hydrogen to natural gas will provide consumers additional options to increase carbon reduction. The project will initially save approximately 13 tonnes of $\rm CO_2$ per annum, with a long term aim to blend up to 10% of renewable hydrogen across SA's networks, which would save approximately 70,000 tonnes of $\rm CO_2$ per annum.

HyP SA is also an Australian-first application of using trucks to transport renewable hydrogen, where 'green' hydrogen is displacing 'brown' hydrogen imported from Victoria, saving approximately 117,000km in driving and 122 tonnes of carbon emissions per year.







"HyP SA is an Australian first and one of only a few projects in the world to deliver a renewable gas blend to homes connected to an existing gas network."

Ben Wilson, AGIG Chief Executive Officer







Winner-Start Up

Innovation for a Low Carbon Economy

iO ENERGY

Outsmarting the electricity market with 100% carbon offset, time-of-use pricing

iO Energy is a 100% carbon neutral electricity retailer giving South Australian customers the opportunity to pay less for clean energy by becoming smarter consumers. iO Energy customers often have a net negative CO2e impact through their electrical usage. In additional to a 100% carbon offset for all electricity purchased, customers also reduce CO2 by up to 73% by shifting use times.

iO Energy fosters smarter consumption through a series of innovations such as revealing the changing cost of electricity by time-of-use, creating a new financial hedging approach (a substantial economic barrier that many do not attempt), improving the transparency of retail pricing, statistically analysing load profiles, developing data dashboards and analytical tools for customers, and developing new business and financing models that support electrification and decentralisation. Through thinking outside the square, iO Energy is creating smarter and cleaner energy options for every day South Australians.

ioenergy





"Our goal is to help South Australian's pay less for cleaner energy, by being smarter users."

Luke Morton, Co-Founder







Finalist Innovation for a Low Carbon Economy

TANDEM ENERGY

The Energy Services Alliance – collaboration for a cleaner future

EfficientSee, 2XE and Tandem Energy have combined to form the Energy & Environmental Services Alliance. The Alliance is made up of like-minded South Australian energy and carbon specialists, including engineers, project managers, technicians and analysts united in supporting organisations big and small to transition to the post-carbon economy. Their model of collaboration creates the opportunity for small-scale energy consultants to have a wider reach and the capacity to take on larger jobs, at the same time improving services for our smaller clients through an increase in specialised expertise while maintaining a lower cost base and flexible approach.

Recent work of the Alliance has included making recommendations on installation of solar, upgrading equipment to be more energy and water efficient, and purchasing greener energy, and these projects have resulted in a total of 1100 tonnes of CO₂e savings identified.











"Being part of the Alliance allows us as business owners to support each other as well as work on really interesting and rewarding projects together."

Rachel Brdanovic, Director Tandem Energy







Winner

Business Leadership

UNITING COMMUNITIES

Leading others towards net zero carbon

As the First South Australian organisation and first Registered Charity in Australia to be certified Carbon Neutral in 2015, Uniting Communities is leading the way on climate change action and is now challenging other local organisations to follow. Uniting Communities' latest development, U City, is a 6 star Green Star Design and As Built building designed to use 45% less energy and 30% less water than a comparable new building. This 20-storey vertical village is a 'radical mixed use' building and Uniting Communities is now pursuing Green Star performance as a pathway to a carbon neutral building certification. As a leader in climate action, Uniting Communities has given many presentations, shared its journey, written case studies, conducted tours and recently held its first certified carbon neutral event "Driving a Sustainable Future".

Since 2010, Uniting Communities has reduced their emissions by over 30%, resulting in savings of over \$1.5 million, and their sights are set on even greater levels of sustainability. Uniting Communities recently announced its intention to become a net zero organisation by 2035.







"We urge other organisations to make a pledge to achieve their own carbon reduction targets for the future of our community, our State and our planet"

Simon Schrapel, Chief Executive Uniting Communities







Finalist

Business Leadership

dSQUARED CONSULTING

Beyond carbon neutral

dsquared is an Environmentally Sustainable Design (ESD) and sustainability consultancy, providing innovative and independent consultancy services for the built environment. Adelaide Carbon Neutral Ambassadors, dsquared consulting has continued to demonstrate leadership and innovation with a focus on measurable emission reduction initiatives. This includes: a 15% reduction in total emissions; diverting 90% of office waste from landfill, with less than one 240L wheelie bin of waste generated for the year; shifting to a carbon neutral certified electricity retailer; maintaining a 6 Star NABERS Energy rating; and implementing an accredited ISO 14001 Environmental Management System to track and reduce their environmental impact.

Through their holistic ESD and sustainability advice, dsquared supports government and business to achieve carbon neutrality, with recent projects including WAX, Jenson Plus and Uniting Community's new U City building. dsquared's leadership is evidenced by their commitment to sharing knowledge and lessons learned across sectors, with their regular presentation of material and advice through events, client and community presentations, and workshops.







"As Carbon Neutral Ambassadors, we are a passionate about continuing to demonstrate leadership and helping other organisations reduce emissions and work towards carbon neutrality."

Paul Davy and Deborah Davidson, dsquared Directors







Finalist Business Leadership

STONE & CHALK

Supporting carbon neutrality in the start-up community

Stone & Chalk operates the Start-up Hub at Lot Fourteen, the innovation precinct located in the Adelaide CBD. With 55 different start-ups and community partners working from within their offices, this leading catalyser supports over 200 entrepreneurs and their teams.

Stone & Chalk have chosen to show leadership through their own carbon neutrality. Partnering with resident homegrown start-up Trellis to provide a unique technology platform for calculating emissions, they achieved Carbon Neutral Certification in 2020. Their baseline profile totalled 949 tonnes CO₂-e for the entire Stone & Chalk business nationally, accounting for the carbon footprint of staff and start-ups based in their Adelaide, Sydney and Melbourne hubs.

Stone & Chalk creates real opportunities for start-ups working on climate change through showcase events, including their latest "9 Ways to Renovate and Build a Smart Sustainable Home" which featured local start-ups Hubble and IO Energy, and their regular Test Drive Tuesdays. Stone & Chalk deliberately enables climate impact innovations to be built, tested and gain exposure in the places the people of Adelaide work and meet.







"Stone & Chalk strives to foster innovation in emerging technology fields and drive change. Applying this in respect to our environmental impact means more start-ups will embody similar values moving forward."

Mike Horton, Operations Manager







Finalist Community Leadership

HAMES SHARLEY

Scotch College Wellbeing and Sports Centre aim for Living Building Challenge core certification

In conjunction with Scotch College, Hames Sharley has developed a powerful vision for the Scotch College Wellbeing and Sports Centre. Aligned with Hames Sharley's company vision, the project will enable the Scotch College community to flourish, supported by their aim to achieve a global Living Building Challenge (LBC) CORE rating.

The focus of the LBC is for buildings to have a positive impact rather than to reduce negative impact. At the Centre this will be achieved through reduced consumption of power and water, promotion of walking and cycling and a 20% reduction in the embodied carbon of primary materials. Once certified, Scotch College Wellbeing and Sports Centre will be the first School in Australia to complete LBC certification at any level.

Hames Sharley works to realign incentives to reconcile the built environment with the natural environment into a civilisation that creates greater biodiversity, resilience, and opportunities for life with each adaptation and development.

Hames





"Scotch College aims to be the first school in Australia with Living Building Challenge certification, making it the first LBC Core certified project in Australia."

Yaara Plaves, Associate, Hames Sharley







Finalist Community Leadership

MAKERSPACE

Leadership in community education through modeling

Makerspace Adelaide is a creative and educational space actively modeling circular economy practices and raising community awareness. Their emphasis on the whole product life cycle has resulted in an impressive reduction of waste including: 4000 litres sawdust diverted from landfill and donated to community; 4.9 tonnes of CO₂ prevented by generating solar energy; at least 500kg timber materials reclaimed, upcycled into new products; 85% of their furniture/fittings are recovered materials; approximately 50kg 3D printing plastic material captured for recycling; and approximately 64 cubic metres of e-waste captured for recycling.

Makerspace Adelaide improves community awareness of circular economy through hands-on, community workshops and demonstrations via community services such as The Adelaide Repair Cafe and community outreach at schools, universities and global events. Their education sector partnership with Green Industries in particular harnesses the opportunity to influence the next generation on the importance of the circular economy. Through their vibrant and engaging community work, Makerspace Adelaide brings the principles of creativity, innovation, inclusion and sustainability directly to the community.







"We are a community run, creative and educational space, with principles of creativity, innovation, inclusiveness and sustainability. We emphasise circularity of design and materials."

Makerspace Operations Team









For more information on the Carbon Neutral Adelaide Partners Program visit **carbonneutraladelaide.com.au**





