



Leading the transition to a low carbon economy



November 2019

**CARBON
NEUTRAL
ADELAIDE**
[.com.au](http://carbonneutraladelaide.com.au)

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
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
Bike SA
Christie Walk
Climate Change Services Australia
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

Ametalin
Aristore
Downer EDI Works
Eco Industrial Supplies
EcoUrbane Building Group
Green Energy Insulation
Greenplate
Green Frog Systems
Kingspan Insulation
Seeley International

Education

Meridian Vocational College
St Aloysius College
University of Adelaide
University of South Australia's Research Node for Low Carbon Living
Youth Inc. Enterprise Academy

Energy systems and solutions

AA Energy Consulting
Accumulus Energy
Adelaide Heat Pumps
Adelaide Solar Services
Adelaide Solar Systems
Alerton Australia
Allume Energy
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
Enzen
Generate Energy (GNR8NRG)
Glaciem Cooling
Lighting & Integration
Living Energy
MAC Energy Efficiency Group
Off-Grid Energy Australia
Planet Ark Power
Resonant Solutions
Schneider Electric
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

Engineering services

AECOM
Aurecon
CAPS
Cundall
Lucid Consulting
Mott MacDonald

Events and venues

Adelaide Convention Centre
Austin Bloom
Beer and BBQ Festival
Gogo Events
International Visualisation Centre/Black Eagle Café
Square Mile Tours
WOMAdelaide
SKYCITY Entertainment Group

Financial services

Bank Australia
Eureka Environmental Upgrade Finance
Statewide Super

Food and hospitality

BBQ Buoy
Cafe Troppo
Pedla
The William Bligh

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
The Culshaw Group of Companies
Urban Ecology Australia

Social and health services

Nunkuwarrin Yunti of South Australia
St John's Youth Services
Uniting Communities
Your Nursing Agency

Sustainability and carbon consultancy

Aboriginal Carbon Fund
Biodiverse Carbon Conservation
Changing Weather
ClimateWorks Australia
Cminus
Pangolin Associates
Seed Consulting Services
Sigma Global
South Pole
Strategy.Policy.Research
Sustainable Business Consultants
Trellis Technologies

Technology, IT and audiovisual

AZZO
Microsoft
Ricoh Australia
Timelapse Adelaide

Transport solutions

Beam Mobility Australia
EcoCaddy
Fonzarelli
GoGet
H2U – the Hydrogen Utility™
Hyundai
My Car
Ride Transportation Solutions
Stigo Bikes
Zero Automotive

Waste solutions and circular economy

Adelaide Green Clean
Jeffries Group
KESAB environmental solutions
Lifecycles
OzHarvest SA
Rawtec
Veolia

Ambassador Finalist

Partner of the Year



D-SQUARED

Leading by example as South Australia's first carbon neutral certified small to medium enterprise

dsquared Consulting has been creating sustainable spaces, places and communities across the City of Adelaide since 2012.

Passionate about leading by example, dsquared last year became South Australia's first small to medium enterprise to achieve carbon neutral certification under the Australian Department of the Environment and Energy's voluntary National Carbon Offset Standard (NCOS).

A collaboration with local company Trellis allowed the company to understand its environmental footprint. Energy, waste, water and material use and associated greenhouse gas emissions were tracked across the business, from the office to the staff commute, business travel to procurement.

The efficiency of the dsquared office was improved by working with the landlord to upgrade lighting and install energy monitoring and solar photovoltaic systems. Staff were actively engaged in the purposeful task of reducing waste. As a result, the office has achieved a 6 Star National Australian Built Environment Rating System energy rating. Annual electricity costs are around \$2,000 less for the office compared to a 4 Star rated office of comparable size.

7.14 tonnes of carbon emissions generated during the last reporting period were offset through the Yarra Yarra Biodiversity Corridor in Western Australia, a reforestation project which aligns with United Nations' Sustainable Development Goals.

As active members of the City Switch and Carbon Neutral Adelaide Partner programs since their inception, dsquared challenges the notion that only large, well-resourced companies can aspire to be carbon neutral. Its 'carbon neutral roadmap' is available to guide any small and medium sized enterprise with a similar desire to tread more lightly on the earth.



"By undergoing NCOS certification, we aim to inspire other South Australian organisations to follow suit. Our 'carbon neutral roadmap' provides an easy to follow guide for Australian SME's looking to neutralise their carbon impact. As the City of Adelaide, and then South Australia, work towards becoming carbon neutral, leaders in industry are needed to showcase what can be done at an organisational level. If other organisations can follow our example, we can all work together to help create a carbon neutral city."

Paul Davy, Director



Government of
South Australia



CITY OF
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Making the City of Adelaide
a carbon neutral city.

Winner

Partner of the Year
Low Carbon Economy



ENERVEN

A flair for delivering renewable energy infrastructure equivalent to taking 2036 cars off Adelaide roads this year

Since emerging from SA Power Networks in 2017, Enerven has been integral to the City of Adelaide's low carbon economy by delivering key infrastructure on projects including the National Broadband Network, Bungala Solar Farm and Tesla's Virtual Power Plant (VPP).

To date, Enerven has installed 7.9MW of solar panel infrastructure across greater Adelaide. This includes 16 SA Power Networks and Enerven depots, 500 homes as part of the Tesla VPP, private projects such as the Glenelg Surf Life Saving Club and Peakfresh manufacturing plant, and stage one of SA Water's Zero Cost Energy Future Program (4.14MW installed with a further 154MW planned).

All of the solar power installed in urban areas contributes to the percentage of renewable energy in the grid, accelerating progress towards low carbon electricity.

Through smart partnerships with the private sector and government, Enerven has created employment for more than 500 people and potential annual saving in CO₂ emissions of 6,190 tonnes, equivalent to taking 2036 petrol cars off South Australian roads each year.

Working with an ever-expanding range of technologies including solar photovoltaics and storage, embedded networks, and virtual power plant, Enerven is reducing electricity costs for its customers, households and contributing to Adelaide's carbon-neutral ambition.



"Enerven over the last 15 years has grown to be one of the largest infrastructure businesses in South Australia, employing over 550 people. We have been able to deliver innovative solutions that are helping our customers reduce their energy costs and create a more sustainable future for Australia. These recent projects, such as SA Water's Zero Cost Energy Future and the State Government's Virtual Power Plant project, are great examples of Enerven bringing to life our vision, of connecting you with tomorrow."

Richard Amato, General Manager



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Winner

Applied innovation

Finalist

Partner of the Year
Low Carbon Economy
Leadership & Innovation



DOWNER EDI

Reducing carbon emissions from asphalt manufacturing with a recycled road

Downer is a leading force in sustainable infrastructure with an internal culture and research and development platform designed to reduce landfill, carbon emissions and build more durable road surfaces.

A \$15 million Wingfield manufacturing plant upgrade in 2014 made the company SA's first producer of a 100% recycled asphalt product. More than 4,197 tonnes of CO₂ emissions have been saved since the upgrade was commissioned, equivalent to taking 1,521 cars off South Australian roads or offsetting the annual emissions of 233 average Adelaide households.

Recycled materials incorporated in road resurfacing projects last financial year were equivalent to almost 60 million glass bottles, 14 million plastic bags, 415 kilometres of road, toner from 333,000 printer cartridges, and crumb rubber from 191,250 end of life tyres.

Downer's services to the City of Adelaide's roadworks program reduced CO₂ emissions by 89 tonnes last financial year and included installation of Australia's first 100% recycled road in Chatham Street.

Downer has also innovated the asphalt manufacturing process, using lower temperatures (warm asphalt mix) which reduces carbon emissions by up to 65% and results in a 25% stronger product.

With a carbon-neutral target date of 2050 and plans to establish a detritus processing facility in Adelaide following its successful plant in Sydney, Downer is committed to advancing its sustainable agenda well into the future.



Specification of our sustainable asphalt products is not a compromise. Through embracing the opportunities of the circular economy, we are demonstrating how government at all levels can repurpose local materials into new streams of use and lower their carbon emissions, while delivering road surfaces more than 25% stronger than standard asphalt.

With improved pavement strength comes increased asset lifespan, meaning over time, the sustainability benefits of these products will extend to reduced maintenance and resurfacing requirements.

Steve Ainscow, Manager, SA Surfacing



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Winner
Leadership and
Influence

Finalist
Applied Innovation



SUHO

Preparing for the climate of the future with Adelaide's first ten star home

SUHO's ten star home, according to the Nationwide House Energy Rating Scheme (NatHERS), currently being constructed in Woodforde in the Adelaide Hills. It is designed to increase understanding of the relationship between human, house and environment and influence the building of more climate-friendly homes of the future.

This is South Australia's first ten star home, designed to need only 3MJ/m² of annual heating and cooling to maintain a comfortable temperature inside. The home uses a lightweight timber reverse brick veneer construction, triple-glazed windows, insulation under roof, ceiling and walls, and incorporates cross-flow ventilation, passive solar design, automation and all-electric appliances to maximise efficiency.

The home has had air infiltration testing and energy consumption monitoring that generate data to be provided back to industry, government and researchers. Information captured by ABB technology platforms, predictive information from 'Hubble' and SUHO's 'Roborater' will be sent to the CSIRO. Over time, the information gathered during heat waves and other extreme events is expected to improve modelling and design, and influence construction approaches tailored to the Adelaide climatic zone.

A solar photovoltaic system and battery storage, heat-pump hot water service, LED lighting, electric car charger and a heat recovery ventilation system combine to make the home comfortable, efficient and effectively sealed from the elements.

Through this project, SUHO is demonstrating ecologically sustainable and adaptive building practice by opening the home to the community, students and construction industry.



"A human centred approach assists in justifying 'goodness' for mental health; the result of paying attention to what is important and not just the quantifiable. Our strategy is to provide inclusive environments to demonstrate how design can foster social commitment to an ecologically sustainable future."

Bain & Nordstrom, 2019



Finalist

Applied Innovation

ALLUME ENERGY & SUNTRIX



Partnering to make shared solar a new reality for apartment living

Solar-tech start up Allume Energy have partnered with established and awarded solar energy business Suntrix to make solar power a more accessible option for the 1 in 10 Australians who choose to live in apartments.

SolShare, an Australian innovation, enables power generated from a single solar system on a communal roof to share power to multiple, separately metered units within the same building.

The first system installed in greater Adelaide is operating at the Queen Elizabeth Specialist Centre in South Woodville. Commissioned in June, it generated 7989 kWh of solar energy in the first 70 days through the winter months. With an estimated life of at least 20 years, the SolShare system is expected to reduce carbon emissions for this customer by 1,320 tonnes.

A 27-unit apartment building in Adelaide's Hurtle Square will soon be one of the first SolShare systems installed globally and the first on an apartment building in South Australia. The system is expected to reduce demand on the electricity grid by 93,075 kWh per year, equivalent to 47.47 tonnes of CO₂ emissions.

SolShare anticipates the system will reduce electricity bills for apartments by 40%. For businesses, the saving could be up to 75% which can add up to thousands of dollars every year.

SolShare has cemented partnerships in Australia with major property developers like Mirvac, and internationally with Sunrun, America's largest solar installer who is helping to fast-track the system's availability in the US market.

This innovation provides a significant opportunity for people to enter the solar energy market and generate associated economic benefits in greater Adelaide.



"Suntrix and Allume Energy are proud to be leading the way in achieving a carbon neutral Adelaide by installing one of the world's first SolShare solar PV systems. This opportunity has been made possible with the use of Allume's ground-breaking SolShare technology, which allows apartments and businesses within the same building to share a single rooftop solar system."

Cameron Knox, Founder and CEO



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Finalist

Leadership and Influence



CHRISTIE WALK

Two decades of inspirational low-carbon living for residents and visitors

Initiated by Urban Ecology Australia in 1999 as a demonstration project, the small community of 40 residents at Christie Walk enjoy an affordable and environmentally conscious urban living environment within the City of Adelaide.

Christie Walk features 27 low-impact apartments and townhouses and boasts solar power generation, passive solar ventilation and good insulation, large-scale stormwater harvesting, minimised car-impact and biodiversity on the half-acre site, including rooftop garden.

The largest single demand on electricity was the hot water service to the Sturt Apartments, comprising 13 apartments over 4 levels. Because the cost of replacing the heat-pump system with a new solar hot water system was high, the body corporate installed evacuated tube solar hot water collectors were installed as boosters instead of replacing the system.

Other upgrades in the past three years include switching to LED lighting, installing time clocks and insulation blankets to heat-pump hot water systems, and installing a new high-efficient 21kW solar photovoltaic system. Projects are resident-funded through a Green Fund, a model that ensures the benefits of sustainable action can support future action.

Every year, the globally recognised development welcomes around 1,500 visitors. Accolades include winning the 2009 National Energy Globe Award in Prague and being named finalists in the 2009 United Nations Association of Australia World Environment Day Awards.

For the Sturt Apartments, the largest building at Christie Walk, 91% of energy (33,000 kWh/year) is produced on site, from low carbon technologies and annual CO2 emissions have been reduced by 22.24 tonnes every year.



"The jury commends Christie Walk as a working experiment in different technologies, building systems and modes of living, providing a test bed for ideas which will assist designers and developers of future housing projects."

Jury, 2006 Civic Trust Awards.



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Finalist

Low Carbon Economy
Applied Innovation



FONZARELLI

Reducing emissions with Australia's first locally designed and made, emission-free motorbike

Transport is the second highest contributor to carbon emissions and Fonzarelli's team is working hard to make cities more liveable by offering greener alternatives to getting around.

This year, the company launched Australia's first locally designed, manufactured and retail ready emission-free motorbike in Adelaide. The sleek looking NKD has a maximum range of up to 120 kms and top speed of up to 100 km/hour.

Innovative manufacturing processes, a considered approach to leaving out non-essential bike components (fewer replacement parts means less landfill), and a dedicated charging station developed by one of the company founders combine to make the entire Fonzarelli scooter fleet, a carbon neutral option for the greater Adelaide daily commute.

The NKD is the latest addition to the Fonzarelli fleet which includes the XI that won a Good Design Award earlier this year. Sydney-based Fonzarelli plans to manufacture 30% of its electric scooters in Adelaide by 2020.



fonzarelli



"Fonzarelli is dedicated to innovating small format emission free transport to create more liveable cities."

Michelle Nazzari, CEO



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Leadership and Influence



FINSBURY GREEN

Leading sustainable environmental practice across the Australian print industry

Finsbury Green is one of Australia's only independently audited carbon neutral print groups. Efforts to reduce their environmental footprint has have been tracked through sustainability reporting since 2002.

The company actively monitors and refines business practices to reduce emissions and offsets the balance in line with the Australian Government's National Carbon Offset Standard (NCOS).

Pioneering practices include reducing the need for chemistry in the plate-making process, switching from mineral solvent-based to vegetable-based inks in 97% of cases, and more efficient presses that minimise waste. An efficient chemical recovery system filters and recycles wash-up solution, and the majority of waste is separated and recycled.

Power factor correction, voltage optimisation and efficient lighting choices minimise energy consumption. The company is also among only a few Australian print groups to have a 99% alcohol-free production process.

An independently audited star rating system – Finsbury Green Star Rating – is used to assess the environmental credentials of supply chain partners and provide information to customers who are involved in the selection of suppliers for their project.

Ongoing, transparent reporting is achieved through its annual Sustainability Report. In 2018, the company removed 1,099 tonnes of CO₂ from the supply chain and reported on its progress to reduce water, energy and waste.

Serving customers, acting ethically and taking responsibility for the economic, social and sustainability impacts is helping Finsbury Green make a positive contribution to a Carbon Neutral Adelaide.



"Supporting Carbon Neutral Adelaide's objectives will be achieved in our collective pursuit of reducing carbon and making our city carbon free."

Peter Orel – Executive Chairman



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Finalist

Low Carbon Economy



MYCAR

South Australia's first fully electric commercial chauffeured service

Did you know a 7km trip from Adelaide Airport to the city centre in one of the most commonly used chauffeured cars generates around 1.8 kilograms of carbon emissions?

myCar is South Australia's first commercial zero-emission chauffeured service. The electric Tesla and hybrid electric Lexus fleet eliminates carbon emissions and pollutants like carbon monoxide, nitrogen oxides and particles that result from the process of burning fossil fuels.

Based at the new Tonsley Innovation District, myCar is a founding member of Carbon Neutral Adelaide and services individuals and corporate customers. Its festival collaborations include Hybrid World Adelaide, Adelaide Festival, The Adelaide Fringe Festival and the South Australia Film Festival.

myCar is currently working with the University of Adelaide to initiate a vehicle to grid battery trial in what will be the first use of an electric vehicle to contribute to the increasingly renewable-powered grid in South Australia.

By providing an eco-friendlier option for transfers within the City of Adelaide, myCar is contributing to making Adelaide one of the world's first carbon neutral city.



"We're proud to achieve the first commercial fleet of electric vehicles in South Australia."

Tim Salmon and Mark Harrington, owners

myCar



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Finalist

Partner of the Year



WOMADELAIDE

Diverting 98% of waste from landfill and offsetting 19,836 tonnes of CO₂ with 70,000 native trees in South Australia

For almost half of its 27-year history, the WOMADelaide festival has been a celebration of world music, arts and dance, and ecologically conscious event management practice.

Collaborative partnerships, intentional event planning decisions, and engaging the masses are among the strategies to minimise the environmental impact of the four-day event attended by 90,000+ event-goers and artists.

Today, WOMADelaide diverts 98% of waste from landfill and sorts waste on-site. Organisers work with suppliers to modify business practices, including switching to compostable-only foodware and eliminating single-use disposable cups. A reusable cup and bottle service and 3-bin waste program with staff on hand to help attendees to correctly dispose of waste are other initiatives.

Through an internationally recognised partnership with Greening Australia, WOMADelaide has offset 19,836 tonnes of carbon since 2007. \$2 from every ticket is used to maintain two Kyoto Protocol compliant native biodiverse forests in South Eastern Australian and on Kangaroo Island. More than 70,000 trees on 65 hectares also provide habitat for rare and threatened bird species.

The 'Planet Talks' series within the festival program gives the public an opportunity to learn from knowledgeable speakers on sustainable relationships with the planet.

Future plans include replacing current diesel generators with biofuel alternatives and reducing water use in partnership with Botanic Park and SA Water.



"From the very beginning, environmental sustainability has been a priority for us and with each festival we have lifted the bar by introducing new practices that can reduce our environmental impact. Through our partnership with Greening Australia we are committed to ensure more carbon dioxide is removed from the atmosphere than is generated by each festival."

Ian Scobie, Director



WOMADelaide
- THE WORLD'S FESTIVAL -



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ADELAIDE
SOUTH AUSTRALIA



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CitySwitch

South Australian CitySwitch Awards



New signatory of the year

EML, Activity Based Working Refurbishment,
L7, L9 & L15, Adelaide office

Signatory of the year (under 2000 sqm)

Winner

CBRE, Tenancy Fit-out

Highly commended

JLL, National NABERS Rating Scheme (all offices above 500m²),
to be the largest and highest rated (non-government tenancy
portfolio) in Australia.

dsquared consulting, Carbon Positive Organisation

Signatory of the year (over 2000 sqm)

Winner

Uniting Communities,
U City Vertical Community Development

Highly Commended

Commonwealth Bank of Australia,
Property Sustainability Strategy

Hall of Fame

David Low, Knight Frank

Kelly Johnson, Uniting Communities



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Finalists

Low Carbon Lifestyle



Jamie and Nick live in suburban Adelaide, often visiting the city and making use of the electric vehicle charging stations. In 2019 Jamie and Nick released a documentary, *Treading Lightly* which explores a year of their personal journey of measuring and reducing their impact on the planet, by having a carbon accountant evaluate their household emissions. *Treading Lightly* screened to three sold out audiences, and Jamie and Nick have continued to receive feedback that many viewers have actively changed their lifestyles as a result of seeing the film. At home, Jamie and Nick reduce household emissions through double-glazed windows, LED lighting, converting their high-energy pool into a low-energy pond, rainwater catchments and wicking beds to grow their own foods, composting and more. Jamie and Nick have also adopted and care for a 1-hectare revegetation site, to balance their carbon impact.

Keith and Lin are a retired couple living in North Adelaide who have endeavoured to significantly reduce their carbon footprint. Last year, they installed a solar system with battery storage and triple glazing for thermal performance. Prior to this, they added 6,000 litres of rainwater storage tanks to the house, significantly reducing mains water demand. Their 7.4kW solar system covers nearly all household use, reducing emissions from electricity to nearly zero, and the household are actively reducing their use of plastics and improving recycling consumption. Keith and Lin are active in the community, members of several sporting clubs and choose local for restaurants and entertainment.

John and Sheila have downsized to a smaller home in the City of Adelaide, where they have significantly reduced their household and transport costs by living a low carbon lifestyle. The couple have changed out 34 downlights to LED, use gas hot water, lowered use of air conditioning, and rely on shading and awnings to control temperatures. They have a low maintenance garden and operate a three-bin system to cut waste to landfill.



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Carbon Neutral Adelaide Partners Program visit
www.carbonneutraladelaide.com.au



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