

# SSROC NEWS

## PRESIDENT'S MESSAGE

As we approach 2024, I would like to highlight some of the massive achievements of the last year and congratulate SSROC's Executive, Delegates, and our CEO and staff on all that we have done.

In particular, I am pleased to announce that our Street Lighting Improvement (SLI) Program was recognised as winner in the ROC category for Sustainable Infrastructure by the LGNSW Excellence in the Environment Awards, while our Paving the Way program was a finalist for the Banksia NSW Sustainability Award.

The SLI Program is also short-listed for the Engineering Excellence Awards of the Institute of Public Works Engineering Australasia, but we will have to wait until next year to find out the results!



**CR JOHN FAKER, SSROC PRESIDENT**



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## PAVING THE WAY

Delivering the intent of SSROC councils' 2019 MOUs to procure recycled where reasonably practicable, Paving the Way has now delivered two huge new and transformative projects under the contract for sustainable pavements. Councils can use recycled crushed glass to substitute for virgin sand and can now also use bitumen that incorporates a binder made from rubber recovered from end-of-life tyres. Both initiatives have industry-wide beneficial implications.

## RECYCLED CRUSHED GLASS

This outstanding achievement for our Paving the Way program continues to set the standard for sustainable procurement and infrastructure renewal.

The 15 participating councils in the program have broken new ground on using recycled content in roadmaking and civil works projects. What began as a response to COAG's waste export ban has turned into an engineering showcase for innovation and collaboration and created markets for all the recoverable glass containers from our Councils' kerbside collections as a substitute for virgin sand.

Already, Paving the Way has diverted 22 million glass containers from landfill without negatively impacting bottle-to-bottle glass recycling or other more beneficial reuse. 1,908 tonnes of CO<sub>2</sub>-e have been saved so far, and the 32,472 tonnes of asphalt pavement that was replaced has been reclaimed and reused.

The project was also used to develop a new methodology for calculating triple-bottom line benefits, which can be applicable to more projects in the future. The first year of the benefits analysis has yielded a benefit cost ratio of 1.07.

Social cost benefit analysis results			
Present value of the benefits		\$6,311,573	
Present value of the costs		\$5,907,961	
Net present value		\$403,612	
Benefit cost ratio		1.07	
Avoided environmental costs	In 2023 \$		
Source	Extraction	Transport	Total
Air pollution PM10	\$6,302.49	\$720,428.59	\$726,731.08
GHG	\$1,401.83	\$160,240.78	\$161,642.61
Noise	\$1,050.42	\$120,071.43	\$121,121.85
Water pollution	\$945.09	\$107,845.98	\$108,791.06
Natural environment	\$94.54	\$11,788.83	\$11,883.37
Urban separation	\$2,617.90	\$80,338.70	\$82,956.60
Total transport environmental savings	\$12,412.26	\$1,200,714.32	\$1,213,126.58

## RUBBER

This initiative of SSROC is part-funded by and in collaboration with Tyre Stewardship Australia (TSA), and supported by the Australian Flexible Pavement Association (AfPA).

The project targets the use of recycled rubber from recycled car tyres as well as from truck tyres (which have been used for some years).

It aims to create a local market for end-of-life car and truck tyres by incorporating recycled rubber in bitumen, while also benefiting councils.



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It is demonstrating the performance, benefits and risks of reused rubber asphalt through a technical analysis and a 12-month multi-council demonstration of different asphalt mixes. The project has already shown that car tyres can be used in asphalt as well as truck tyres, and that the wet application method is better for the road crews laying the material.

AfPA developed guidelines and monitoring parameters for crumb rubber in asphalt. The mixes incorporate varying levels of crumb rubber, and the performance in different conditions will be monitored against control sections for an initial 12 months.

According to RMIT University experts, rubber asphalt, compared to standard asphalt, has 20 to 50 per cent extra longevity depending on factors such as mix design, thickness of the layer and quality of sub-layers. RMIT University will deliver a lifecycle assessment of the demonstration mixes.

We are already seeing incredible benefits, including:

- 20 per cent cost savings for councils through reduced gate fees at materials recycling facilities and reduced transport costs
- Reduced greenhouse gas and fuel emissions by reducing the transport of sand from distant quarries

- Two new glass and rubber beneficiation facilities in Sydney creating new green production jobs
- Demonstrating that end-of-life rubber from car tyres can be recovered in the same way that truck tyres can
- Deploying a new lower temperature wet mix that creates less fumes than conventional mixes

Longer term, Paving the Way: Recycled Rubber will improve the sustainability of council roads, reduce net capital and operating expenditures by extending road life, as well as improving working conditions and creating a market for this kind of rubber waste.

Furthermore, as these materials gradually become better known and the use of them becomes the norm, the benefits will continue to grow.



Paving the Way: *The Reusing Rubber - Recycling Tyres for Roads* works phase is complete.



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## STREET LIGHTING PROGRAM

Our Street Lighting Improvement (SLI) Program is continuing to deliver better lighting, with almost all the lights on residential roads upgraded to more efficient and effective LEDs. The program to upgrade lights on main roads kicked off last year, as SSROC agreed terms with Ausgrid, and now deployment over three years of the new lights across the Ausgrid area has begun.

There are clear financial savings for all the participating councils, as well as improved lighting. And there are two additional features that make this deployment the largest of its kind in Australia, and perhaps in the world – the smart lighting controls and the exciting Smart City opportunities that this latest initiative will bring.

Each new light will have a smart control, enabling councils to tailor lighting to the environment and more efficiently and effectively maintain compliance. A sensor port on each light will give councils ready access to a network of points for connecting Smart City sensors for any number of purposes, such as traffic-counting and analysis, noise-monitoring, movement-sensing or pollution-detection.

With the upgrade recently rolling out to our local area, SSROC President, Cr John Faker, joined Ausgrid CEO, Marc England, SSROC's CEO, Helen Sloan, and our SLI Program Manager, Graham Mawer, and the Ausgrid team, for an official launch of this stage of the program.



Ausgrid's Marc England and SSROC's President Cr John Faker





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## **SSROC'S CONTINUING WORK ON THE HOUSING CRISIS**

SSROC teamed up with Resilient Sydney to establish the Resilient Sydney Diverse and Affordable Housing initiative, aiming to deepen and progress actions that Sydney councils can take to address the growing housing affordability problem across the metropolitan area.

The team arranged for representatives from 32 Sydney councils to come together online with WSROC, NSROC and Western Sydney Planning Partnership on 1 March 2023 to cooperate on strategies to improve housing affordability for low-income households across Sydney.

The participants in the workshop heard from urban planning and housing experts, Urbanista Australia, about their findings from extensive consultation with councils across metropolitan Sydney on the challenges and barriers to implementing affordable housing contribution schemes.

A suite of resources and materials was developed as a result, which are now available on the SSROC website. They aim to help councils establish schemes and grow the supply of affordable rental housing for their communities as a result.

Following the workshop, SSROC collaborated with LGNSW to establish a new affordable housing network for council officers involved in developing affordable housing through the planning system.

## **PROGRAM FOR ENERGY AND ENVIRONMENTAL RISK SOLUTIONS (PEERS)**

In the third iteration of PEERS electricity procurement, SSROC brokered one of the largest renewable energy contracts for local government with ZEN Energy, worth approximately \$180 million, and delivering over 214 gigawatt hours of electricity per year to 25 councils across NSW.

Twenty-one of the participating councils across NSW are supplied with 100% renewable energy. ZEN sources the clean energy from the 132MW Nevertire and 56MW Moree solar farms in NSW's northwest, and the 120MW Hillston Solar Farm in the state's southwest.

Over 300 major council facilities, more than 210,000 streetlights and 3,000 small sites managed by the 25 councils will benefit from the agreement.

PEERS 3 is an innovative low risk deal that proves councils can secure a competitive renewable energy pricing and move close to their net zero emission target without entering into long-term agreements.

This agreement lasts for four-and-a-half years and can be extended for up to four more years by the group of councils. The environmental benefit of this contract equates to 150,000 tonnes of CO<sub>2</sub>-e reduction annually, equivalent to 2.4 million trees, for the duration of contract.

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## MATTRESS RECYCLING

SSROC sleeps easy knowing that under our two mattress recycling contracts 135,159 mattresses have been diverted from landfill.

According to the Australian Bedding Stewardship Council (ABSC), Australia sends 1.8 million mattresses to landfill each year. So mattresses are among the items most commonly sent to landfill, even though many components can be recycled.

The two service providers, Soft Landing Mattress Collection and Envirobeds, serve 9 member councils and have collectively processed and recycled over 1,397 tonnes of steel and 700 tonnes of foam, demonstrating SSROC's commitment to creating new pathways for resource recovery.

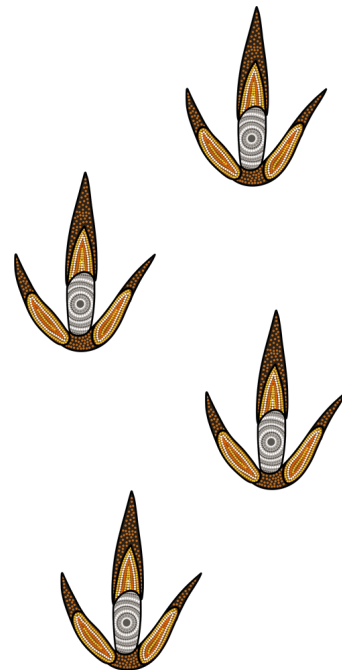
These large and bulky waste items contain valuable resources include wood, foam, textiles, and springs, that can be recycled into new products. Recycling mattresses also helps councils to reduce waste-handling and save on landfill costs.

Soft Landing Mattress Collection, a social enterprise, sends recovered steel to Australian recyclers who use it for roof sheeting, foam goes to carpet-underlay manufacturers, and bed bases to local industry for mulch. This achieves 75 per cent resource recovery.

Envirobeds, also a social initiative, strives to reuse and recycle 100% of the mattress components. Latex and textiles from mattresses are used to make dog beds that they donate to local vets and RSPCA.

In partnership with Red Earth, Envirobeds make fishing spears out of the outer frame of mattress springs which Red Earth distributes to remote Indigenous communities across Australia.

The spears are also used in Red Earth's cultural immersion initiative, which takes students to deepen their cross-cultural understanding of Indigenous Australians on their own land and on their own terms.





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## SUSTAINABLE PROCUREMENT

SSROC Procurement is always looking for ways to use councils' purchasing power to drive sustainability outcomes. SSROC's own procurements always include environmental, social and economic outcomes as well as the financial benefits to councils, and we are continuously improving our understanding of how to maximise those outcomes.

SSROC worked with councils on sustainable procurement training and a package of resources to support councils, and as part of SSROC's recent webpage upgrade these resources are now all online including:

- **Elearning Modules:** two modules on sustainable procurement, designed for council staff to undertake in twenty minutes from the convenience of their mobile or computer. These are a great introduction to sustainable procurement, and how to apply it. Councils can include this link (see below) in their own staff resources: <https://ssroc.nsw.gov.au/sustainable-procurement>
- **A Sustainable Procurement checklist:** a handy one-page list of how to consider sustainability at each step in the procurement process.

- **Sustainability Criteria, Clauses and Metrics in Procurement:** a useful guide for councils to refer to when developing procurement specifications and clauses, particularly for product categories with high sustainability risks such as construction, facilities management, waste and general categories.
- **Case Studies on Sustainable Procurement:** real examples of sustainable procurement in action.
- **Resource list on Sustainable Procurement:** useful websites and resources for more information.
- **Due Diligence:** a short guide to the checks and processes needed to assess suppliers before entering into a contract with them.

