## SCANIA AUSTRALIA TRANSIT

[ THE NEWSLETTER FOR THE SCANIA BUS AND COACH FAMILY ]

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# Scania Touring An AllStarr is born



MAY 2019



#### WELCOME

Welcome to the new edition of Scania Transit, the newsletter for Scania bus and coach operators and owners.

The pace of change in our industry is not slowing down, and Scania is at the forefront, we are actively promoting alternative fuels and renewable energies that can power the buses and engines of the future.

We're starting with hybrid buses, the first of which are only months away from rolling into service in Australia.

Our diesel-electric hybrid buses promise significant fuel savings and reductions in exhaust emissions, both of which are good news for all Australians, not just those who pay the fuel bills on the bus fleet.

Scania has been committed to the shift towards a sustainable transport system for many years but recently we have stepped up a

#### **KARIN STEPS UP**

Karin Rådström, formerly Senior Vice President Buses & Coaches, has been appointed Executive Vice President and Head of Sales and Marketing for Scania CV. She took up her position on 1 March and will report to Henrik Henriksson, President and CEO.

Karin (seen on the left) has been with Scania since 2004 when she joined as a trainee after graduating Master of Engineering in Industrial Management at Royal Institute of Technology in Stockholm. Since 2007, she has held various managerial positions within Scania's sales and service organisation. She took up her current position in the bus division in 2016, and visited Australia in late 2017 for the BIUC Conference in Hobart.

"I welcome Karin Rådström to my team and look forward to her contribution to the further development of Scania's market performance. Not least, her experience from the business area Buses and Coaches and sales of sustainable transport solutions will be of great value to us," Henrik Henriksson said.

Karin Rådström succeeds Christian Levin, who has been appointed Chief Technical Officer and member of the TRATON Executive Board.

couple of gears. Not only do we offer a range of alternative fuels to power our buses, but electrification is coming down the line.

Electrified public transport is no big deal in Melbourne, and soon to be in Sydney. We have trams running on electrical power. So, there should not be any public resistance to electric buses. Public trials of our electric bus solution are already underway in Sweden, but in the interim, our hybrid solution is one of the most sustainable and ready to go solutions in our suite of alternative fuelled products. These vehicles require no additional operational infrastructure and deliver what they promise, as our experience with them in Spain has shown.

Additionally, in Australia Scania has been signing up MOUs with alternative and renewable fuel providers to ensure that when you do switch from pure diesel to a cleaner solution, there will be no shortage of fuel. To date we have MOUs with biodiesel, ethanol and compressed natural gas suppliers.

Most buses operate in densely-populated urban environments, which is where the cleanest possible solutions should be engaged. It is unbelievable that we have 20 plus year old route buses still plying our streets with little or no emission control in 2019 and it is incumbent on all of us to push for a more sustainable level of public transport.

Our global CEO and President Henrik Henriksson visited Australia in March. While he was impressed with the way Australians focus on road and workplace safety he couldn't understand why there was no similar obsession with reducing air pollution, by initially at least, adopting Euro 6, or moving faster towards more sustainable fuels.

He made the point that if your business in the future is not sustainable, no one will want to do business with you, no one will want to invest in your business, and no one will want to work for you.

Scania has sustainable solutions for the here and now. Talk to us to find out how we can help you run a cleaner more sustainable business.

> **Julian Gurney Director of Sales - Scania Australia Bus and Engines**



#### **READY TO DEPLOY**

Scania will continue its long-running relationship with the Department of Defence, by supplying 16 three-axle coaches over the next 18 months, with eight to be delivered this year.

The K 410 IB 6x2 configuration chassis with a fixed tag axle will comply with Euro 6 emissions control standards, and when fitted with their Express bodies, will be in use across the country.

"Scania is delighted to be able to continue our relationship with the Department of Defence," said Jamie Atkinson, National Sales and Contracts Manager for Victoria. Tasmania. South Australia and Western Australia.

"The order for the new vehicles recognises the success of our recent work together, supplying vehicles for the Department's requirements.

"Our durability and reliability, plus the excellent fuel efficiency of the previous batch of vehicles has made Scania the natural choice for a second batch of modern coaches The arrival of the 16 new vehicles will trigger

"These vehicles will be used on long-haul runs between bases and population centres," he said





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- the retirement of older vehicles which produce greater emissions.





#### **SCANIA APPOINTS NEW BUS SALES AND CONTRACT** MANAGERS

Jamie Atkinson and new hire, Ian Clarke, have been appointed to newly-formed roles within the Scania Australia Bus organisation

Jamie will become the new National Sales & Contracts Manager for Victoria. Tasmania, South Australia and Western Australia, while Ian will perform the same role at Scania Bus in New South Wales, the ACT. Queensland and the Northern Territory, based in Prestons, Sydney.

"We now have a structure that aligns with Scania's global organisation, with Account Managers reporting to the Sales Managers and the Sales Managers reporting to me," said Julian Gurney. Director of Sales for Bus and Engines.

Ian joins Scania after a long career working with ZF Transmissions, based in Sydney, and a period with another bus OEM active in Australia. He shares a strong passion for the bus industry and is looking forward to working with the Scania Bus family

"I am very excited to be joining Scania Bus at this time, especially in the wake of the launch of the Scania Touring. I'm also looking forward to the arrival of the next generation of powertrains running on alternative and renewable fuels, which are destined to transform the industry over the next several years." Ian said.

The structural changes come as Scania Bus is experiencing record levels of orders, with deliveries expected to hit new highs in 2019. The first Scania Hybrid buses are also expected to enter service during the year.

cania Australia will supply the world's first righthand drive Generation II, K320 UB 4x2 Hybrid bus to long-time customer,

McHarry's Buslines of Geelong, Victoria. Discussions leading to the order for

three vehicles of this type was concluded in Melbourne in April during the visit to Australia of the Scania global President and CEO, Henrik Henriksson.

The first of the vehicles is expected to enter service later this year.

The order follows a fact-finding mission to Spain last year where McHarry's General Manager, Ashley McHarry, saw the hybrids in action in the Spanish capital, Madrid.

Madrid city's bus operators have more than 100 hybrid Scania city buses in service and has established a stable reduction in diesel fuel consumption and emissions of up to 25%.

The buses McHarry's will put to work in Geelong are a Generation II version from Scania that allows the bus to run on battery power alone, either automatically, as determined by the on-board power management system, or when manually selected by the driver, a function known as "Silent Mode". These are the first right-hand drive examples the factory has produced.

These Scania hybrid buses can travel on battery power alone up to 4 km and at speeds of up to 45 km/h on the flat at a gross weight of 15-tonnes, before the combustion engine restarts to recharge the batteries. To recharge the battery pack from empty takes around 30 minutes of engine running.

The Scania parallel hybrid powertrain system comprises a 9.0-litre 5-cylinder Euro 6 compliant diesel engine producing 320 hp, and 1600 Nm of torque, which is able to run on regular diesel, biodiesel or HVO (Hydrogenated Vegetable Oils) allowing for a CO<sub>2</sub> reduction of \*92%. It is mated to a Scania electric motor that can deliver up to an additional 177 hp (130 kW) and 1030 Nm of torque and is integrated into the Scania Opticruise automated 12-speed transmission.

The motor is located between the clutch and the gearbox input shaft. This full integration of the electric motor gives a compact design and the interface between the gearbox and engine is maintained. The electric motor is cooled by gearbox oil, which is in turn cooled using the regular engine fan.

The system automatically and independently maximises electric motor operation as well as battery charging. The Scania Driver Support menu offers a feature specially designed for the hybrid, giving the driver direct dashboard feedback on how well their braking is regenerating battery charge. The feature grades the braking after certain situations and provides the driver with an average score.

"The Euro 6 diesel engine is the most efficient on the market today. In combination with the hybrid powertrain, operators will be able to lower their fuel costs by up to 25 % in normal operation," said Julian Gurney, Director of Sales for Scania Australia Bus, Coach and Engines.

"The electric motor and the combustion engine are an outstanding team. Together they offer a winning combination of amazing driveability with swift responses to driver inputs. They also save fuel. By recovering brake energy and using the automatic start/stop-function at low power needs, operators will be able to substantially cut both fuel cost and emissions - and these reductions are even greater when running on battery only.

"Scania has a well-established reputation globally for taking action to reduce emissions and fuel consumption for the benefit of its operators," Julian said.

"In addition to already supplying a large number of first-generation hybrid buses to European operators, we have begun to deliver a second generation that allows the vehicle to run on battery power alone.

"Concurrent with our roll out of hybrid diesels in Europe we have a wide range of alternative, renewable and sustainable fuel-friendly engine options for bus operators to consider, and we have full battery electric powered buses on test in real world conditions, and the first examples of operator fleet vehicles are being delivered," Julian said.

"If an operator were to run a Scania Hybrid on biodiesel or HVO, they would emit around \*92% less CO<sub>2</sub> from the tailpipe.

"As a result of the extraordinarily long working lives of Australian city buses, compared with Europe for instance, there are very many buses still on our roads, or carrying our school children, that have outdated emission control systems fitted.

"Scania is hoping that the arrival of the hybrid bus, the availability of alternative fuels and the not-too-distant arrival of electric buses will focus attention of the state governments and operators on the easy and practical steps they can take to make a difference to urban air quality," Julian said

\*This estimate refers to an HVO and Hybrid combination.

# **MCHARRY'S TO DEBUT WORLD-FIRST** SILENT SCANIA **HYBRID CITY BUS**

**AHYBRID** 

McHarry's moves into the future with Hybrid power. Seen here are (I-r) Scania Australia Managing Director Mikael Jansson, ith Scania CEO Henrik Henriksson and Ashley McHarry, while Jamie Atkinson, Anthony King and Julian Gurney look on

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Clean, green and ready for passenger services, Scania's Hybrid bus solution is ready for the routes. vbrid buses from Scania are

about to take to the roads in Australia, bringing with them the possibility of an up to 25% reduction in both fuel burn and exhaust emissions. It's a significant step towards a cleaner environment that Scania is making available to all bus operators.

"The Scania Hybrid we are bringing to Australia is a variant of the K 320 UB Euro 6 chassis our urban bus customers have been operating for many years," said Trevor

O'Brien, Scania Bus and Engines Product Manager.

"In addition to the up to 25% fuel savings, if you elect to run the bus on biodiesel there is a further significant reduction in CO2 emissions as well.

"These engines can run on up to B100 biodiesel direct from the factory with no modifications, and the reduction in CO2 emissions is significant, though varies depending on the source of the biodiesel," Trevor said.

"In Australia, Scania has already signed MOUs for the supply of suitable biodiesel with two suppliers," said Anthony King, Scania's Sustainable Solutions Manager.

"This move is to be able to provide reliable supply of biodiesel to our operators who are committed to making a difference to their carbon footprint, independently of any mandate from government.

"Scania has technology available here and now to help our bus operators reduce their environmental impact, and without any major impact on their overall operating costs," Anthony said.

According to Trevor O'Brien, a large fleet of Scania Hybrid powered buses has already been in service in the Spanish capital, Madrid, and has shown a consistent reduction between 19-26% in fuel burn over the past year in regular route services.

"The hybrid driveline delivers its best performance and fuel reduction when it is

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driving in suburban conditions, and when the average speed is around and above 17km/h, (a typical SORT 2 operation as defined by UITP). This covers practically all Australian operating conditions.

"For buses running express or in outer suburbs, where higher speeds are the norm, the benefits will be significant. But even on routes that take in CBD work, we have higher than 17km/h averages, so the Hybrid technology will deliver excellent results there as well. The bus can do 100 km/h on freeways effortlessly, and with 320 hp from the diesel engine alone, it has plenty of power for hilly driving routes even without the electric motor boost," he said.

"The beauty of the Hybrid technology is "The Scania Hybrid operates a 660 Volt

that the level of infrastructure needed by operators is close to zero. You don't need any heavy infrastructure investment at the depot, only some training for service staff in handling high voltage systems," he said. electrical system with batteries placed on the roof of the bus. An inverter provides the regular 24 Volts to supply the rest of the chassis and body systems.

The hybrid batteries are charged by the same electric motor that provides the drive that is integrated into the driveline between the diesel engine and the Scania automated Opticruise transmission," Trevor said. "When running in normal diesel mode,

this electric motor charges the batteries as



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well as harvesting regenerated energy under braking."

The Scania Hybrid is not a plug-in Hybrid and can run on diesel alone, on electric power alone or a combination of the two and seamlessly switches between these modes as driving conditions demand.

"The Zero Tailpipe Emissions mode (ZTE) can provide up to 4 km running on electric power alone if the batteries are fully charged," Trevor said.

"However, should the air compressor system or air conditioning need additional power, the diesel engine will start and idle.

"In 'Silent Mode' the bus can move quietly away from the bus stop on battery power alone, with the diesel engine idling to provide power for the auxiliary systems and will provide full drive when required. The first batch of Hybrids will be fitted with Express bodies for route bus work.

"We have been to the factory with the engineer from the bodybuilder to show just how the system is easily integrated into existing bodywork designs. Aside from the installation of the electric motor and the wiring, there are very few other significant chassis changes that body-builders would have to allow for." Trevor said.

For more information on how Scania's diesel hybrid bus chassis can help you reduce your running costs and emissions, contact the Scania Bus Sales Team on 03 9217 3300.

ᄎ The Scania parallel hybrid bus utilises a 5-cylinder engine with an integrated electric motor drives through Scania's Opticruise automated gearchange. Far left, the electronic control units, top left, roof-mounted battery pack, and below, the dashboard readout





A 16% reduction in fuel use by 20 drivers engaged in a Scania Optimise programme prompts wider adoption by Transport Canberra.

Scania Optimise has delivered Transport Canberra a 16% fuel efficiency bonus as the result of an initial 20-strong, 6-month driver monitoring and coaching programme conducted in 2018.

On an annualised basis, that adds up to a potential saving of around \$150,000 in fuel costs across the 20 chassis.

The public transport operator ran a programme with 20 drivers drawn from its Belconnen and Tuggeranong depots, operating route buses in the nation's capital, and utilising all aspects of Scania's Optimise.

The fuel savings exceeded expectations.

Typically, Scania expects to see a10% fuel saving, combined with less wear and tear and greater passenger acceptance as a result of smoother driving techniques employed.

The programme's success led to a pledge to expand the programme in 2019 with 40 drivers from two depots taking part in early 2019, and a second group of 50 drivers is expected to join the programme in mid-2019, underlining its on-going success.

"The fuel efficiency gain is impressive given the drivers were not on the same route day after day, and they were travelling at all hours, often in congested traffic," said Scania Australia Bus Driver Trainer Peter Verbrugge, who delivered the programme.

"The programme starts with four hours of classroom instruction and a confirmation drive by me and then the drivers. After a week getting used to the Scania Optimise driving style, we conduct in-route training to see how the techniques are being observed, and then after that there is a monthly coaching call

once the driver has seen his or her results for the period

"One of the biggest gains was achieved by focussing on gaining free km, or coasting, and modulating speed on approach to intersections to avoid coming to a halt if the lights are about to change.

"The analytics highlight extremes of performance, so we can see if a driver has returned to poor habits of, for example, harsh acceleration and braking or unnecessary and extended idling, which burn fuel," Peter said.

Richard Bain. Manager of Driver Services at Scania Australia said the Transport Canberra results were indicative of what all operators using Optimise could achieve.

"The data shows us that drivers who have the right attitude and who continue to practice what they have been shown, can over the long term deliver consistently improved fuel performance."

#### **BUSES TO BE MADE IN MELBOURNE**

Scania will supply 100 buses to Transdev Victoria for use on metropolitan Melbourne and outer suburban routes. The new vehicles will renew 20% of the Transdev fleet in Victoria and allows the operator to pension off buses 20 years and older.

The new vehicles will be built on Scania K 310 Euro 5 and K 320 Euro 6 chassis and powertrains and the body building will be shared between Gemilang and Volgren.

The Gemilang bodies will arrive in Australia built-up but require interior fit-out. This will be undertaken by OzPress in Ballarat, leading to the creation of up to 20 jobs, and satisfying the state government's requirement for local content.

At a ceremony to celebrate the commencement of operations at OzPress' facility in Ballarat in April, the Victorian Transport Minister The Hon. Melissa Horne; Juliana Addison, MP for Wendouree; and Michaela Settle, MP for Buninyong (pictured above) met some of the people behind the project and commended them for their investment in Victoria.

The buses are expected to enter service progressively from July. They are all low floor models with full disability accessible. "By providing 100 new Scania chassis to Transdev, Scania is helping the operator renew its fleet; put safer, cleaner buses on the road; and give the travelling public a more up-to-date and enjoyable form of transport," said Julian Gurney, sales director for Scania Buses and Engines.



"We would like to congratulate the Government for initiating such a large order to help the Victorian Public Transport system move toward a more sustainable form of transport for the travelling public," he said.

"The new buses will be used on a variety of routes within Melbourne and will constitute a 20 per cent renewal of the Transdev fleet, which runs one third of Melbourne's route buses," he added.

"The new buses will give drivers a smoother, safer and more efficient bus to drive and - with the Euro 5 310hp and Euro 6 320hp engines - will have plenty of power to cope with the hills in Melbourne's outer suburbs. Some of the buses will be used on orbital routes which constitute some of the longest routes in the southern hemisphere."

"We're modernising, expanding and upgrading Melbourne's bus fleet, so it delivers a more reliable and comfortable journey for the thousands of Victorian passengers who depend on it every day," said Transport Minister Melissa Horne



#### **MACQUARIE ROLLS ON**

Riding on the back of a successful commissioning of Scania K 310 Expressbodied school and charter buses in 2018, Newcastle-based Macquarie Educational Tours has added two new Coach Concepts touring coaches to the fleet.

Owners Greg and Heidi Turton have been impressed with the performance of the K 310s and are very happy with the support they have received from Scania in Newcastle. "The new coaches will be used for premium school group tours and luxury adult touring," says Scania Account Manager for New South Wales, Warren Young, who recently handed over the new vehicles.

"Both coaches have been specified to a very high level with fridges in the front, driver bunks, new-style ceiling illuminations with 'disco effects' and timber floors," Warren savs.

Also specified were duotone Styleride leather seats. The coach aimed at adult luxury touring is equipped with 48 seats and the school version has 58. Both of the three axle vehicles are 12.5 m long so they do not need access permits and can go anywhere at any time. The tag axle is fixed on these vehicles.

The coaches are powered by the latest Scania 450 hp Euro 6 six-cylinder engine

driving through a Scania Opticruise automated 12-speed, assisted by a Scania retarder, which will provide very efficient fue use and low emissions.

The vehicles are expected to travel around 80,000 km annually.



#### **SCANIA BUS ORDERS AND** DELIVERIES **RISE IN Q1**

Scania bus and coach orders and deliveries rose to record levels in Q1 of 2019, reflecting the strength of the Scania offer and the demand in the market for modern product.

During the first three months of the year, Scania delivered 76 buses and coaches, up from 64 in the same period last year. while new orders ran very close to three figures in Q1. Fleet orders from Dysons. CDC. Ventura and STA as well as the Department of Defence (see separate story), all bolstered the total, while regular customers Wangaratta Coach Lines, Tassielink, Warrigal Bus Lines and Firefly also committed to new vehicles.

The two axle segment also contributed to the healthy order bank, with a signifucant number of IRIZAR i6. Scania Touring, and locally built school/charter coaches ordered from NSW & QLD operators in the Q1 period.

"The growth of orders and deliveries reflects the appeal of not only the product but the total offer from Scania that includes maintenance contracts, our in-house finance arm and the availability of Euro 6 emissions control," said Julian Gurney, Director of Sales for Bus and Engines at Scania Australia.

"Orders are up 26% year-on-year for the first quarter and this gives us confidence we will set a new record for the full year 2019. The good news for the travelling public, either on city route buses or extended touring coaches is that we have comfortable, clean and fuel efficient vehicles for them to enjoy. Benefits for operators are lower running costs and a smaller carbon footprint, especially with our Euro 6 solutions," Julian said.

"The greater the number of older buses we can retire from urban route duties and replace them with Euro 5 or ideally Euro 6 compliant engines, the greater our impact on cleaning up air quality," he said.





#### SCANIA CEO DROPS IN TO MELBOURNE

Scania's President and Chief Executive Officer and a number of the senior executive staff were in Australia in March to assess the market on a flying visit to Oceania.

Briefly meeting and addressing Scania Head Office Staff, and meeting the industry's bus and truck media during his 48-hours Down Under, Henrik made a few salient points regarding sustainability and Australia's perceived lack of progress towards Euro 6 emissions and lack of incentives for adoption of alternative or renewable fuels.

He also hinted that some announcements regarding future technologies would be revealed at the UITP Global Public Transport Summit in Stockholm in June

"We have a great history in buses at Scania

Australia of being around 25-30% of the market here, and we should maintain that, with the line-up of products and services we have now," Henrik said.

"In 2019, Scania is doing well as a global group, but for the future, we need to invest in new technology for self-driving vehicles. electric trucks and buses, connectivity and digitalisation.

"Scania will take the lead in driving the shift; first in the shift to a more sustainable transport system. We believe today's systems are polluting and they are destroying the climate for the world.

"Transport represents close to 20% of CO2 emissions in the world, and we are a big part of that. We want to be part of the solution, which is why we want to drive the industry. We will be the ones in the yellow jersey in the bike race and pull the team forward by changing.

"In a few years - maybe not immediately in Australia but soon - if you have not turned your business into a sustainable one, no-one will buy your products and services, no-one

will invest in your company, no-one will want to work for you.

"Electrification is definitely coming, and soon. But in the meanwhile, we have to work with other types of solutions: biofuels for instance are becoming more important for buses and trucks around the world.

"We believe very much in sustainablyproduced biofuels - coming out of waste water creating biogas coming out of sugar cane production to create bioethanol, or through other sorts of growth and agriculture products you create biodiesel. Then we can reduce CO2 by 90-95%."

"For diesel engines, Euro 6 (gives you access to) the latest technologies, it gives the best fuel efficiency, it gives the best total operating economy. Different technology platforms are linked to Euro 6, so safety features, Advanced Driver Assistance System features, and things like that (mean that) if you're not following the latest technology level on the emissions, you miss out on a lot of other goodies not coming through to your market." Henrik said

#### GAS-POWERED SCHOOL BUSES DRIVE SUSTAINABILITY

Four new gas-powered Scania school buses have recently been delivered to the Belgian city of Ghent. They are replacements for four older diesel buses and the city now aims to change all nine school buses in its fleet to more sustainable alternatives.

Ghent is a city in transition with the ambitious objective to reduce carbon emissions from transport by 40% (compared to 2007) by 2030. In addition to the four new buses, the city has ordered 11 gas-powered Scania trucks for delivery this Sprina.

Ghent ordered its first gas-powered truck in 2016, a Scania P 340 with a crane and



container. The city's sustainable mobility plan, launched in 2016, is already bearing fruit with registered nitrogen dioxide levels in the centre declining by 20%.

"With the purchase of these four gas buses, we are opening our new planning period with a lasting measure," says Ghent Deputy Mayor, Annelies Storms.

"All our children deserve clean air and I stand with them. In the coming years, I want to make the city's fleet more sustainable as an investment for the future.'

#### **OPENING THE ROUTE TO ALTERNATIVE FUELS**



Bioenergy Australia released the first 'Bioenergy State of the Nation Report' produced in collaboration with KPMG, which identifies Australia's significant bioenergy opportunity and provides a criteria for kick-starting Australia's bioenergy economy. Scania supported the launch in Canberra late last year. Independent MP Bob Katter, biofoods producer Manildra's Kirsty Beavon Bioenergy Australia CEO Shahana McKenzie and former Liberal leader and bioenergy advocate Dr John Hewson, posed with the Scania Euro 6 bus at Parliament House, Canberra, for the launch Above rght, Scania Sustainability Solutions Manager, Anthony King.

Scania Australia is taking bold strides towards making the adoption of alternative fuels an easier choice for the country's transport operators.

The company has recently signed memoranda of understanding with four providers in the bio-fuels industry, in order to lubricate the path towards adoption of more sustainable and cleaner transport solutions for its customers.

Wilmar Bioethanol Australia; Ecotech Biodiesel, Just Biodiesel, and the NGV Group, infrastructure suppliers and consultants for Natural Gas and Biogas, have all signed up with Scania.

"Having held many discussions at high levels with a number of transport-related entities this year, from governments to operators and suppliers, and having noted significant enthusiasm for actually turning this into

action, Scania is now moving to facilitate the adoption of alternative-fuelled vehicles in Australia." said Anthony King, Scania Australia's Sustainable Solutions Manager. "We want to secure reliable, consistent and widely available biofuels for customers nominating alternative fuels for their future Scania vehicles, as part of our drive towards creating a sustainable transport future," Anthony said.

Scania has a broad alternative fuels engine portfolio, and these can operate on Compressed Natural Gas (CNG -15 % CO<sub>2</sub>), Compressed Biogas (CBG -90 % CO, Liquefied Natural Gas (LNG -5 % CO,) Bioethanol (-90 % CO2), Biodiesel (-85 % CO2) and HVO (-90 % CO<sub>2</sub>) and Hybrid + HVO (-90 % CO2).

"Transport contributes a guarter of total energy-related CO<sub>2</sub> emissions. Operators do not have to wait to adapt their businesses to a

#### FOSSIL-FREE BUSES BY 2050

A fossil-free commercial transport system in the timeframe of the Paris Agreement target is not only possible, but also financially attractive from a societal perspective. This is the key conclusion of a study initiated by Scania

"Reaching zero CO2 emissions in our sector in the timeframe of the Paris Agreement is attainable but will call for change at an unprecedented high speed, and for serious and joint private and public sector commitment," says Henrik Henriksson, Scania's President and CEO.

"We can achieve more than 20 percent reduction of CO2 emissions by working even smarter in the current transport systems, for example through improved routing and better load management.

On top of that, we see several fuel and powertrain pathways to a fossil-free future. Biofuels offer the fastest CO2 emissions reductions, and electrification is the most costeffective." Henrik savs.

See more at https://www.scania.com/ group/en/commercial-transport-canfossil-free-by-2050/





sustainable transport system - the solutions are already here.

Scania can provide a broad range of platforms and services to support our customers today and tomorrow." he said "Scania has been a leader in the provision of Euro 6 vehicles in Australia – notably with the fleet of close to 100 Euro 6 buses delivered to Transport Canberra since 2014 – plus the delivery of many Scania trucks similarly compliant, so it is only natural that we now look at rolling out access to further alternative fuel vehicles to a wider body of customers," Anthony said

"For a fuel to be considered sustainable it needs to fulfil three criteria: reduce CO<sub>2</sub> from wheel-to-well; be available in sufficient volumes to make a difference; and provide a competitive business case against regular diesel to make it commercially viable," Anthony said.







### **A SOLID FOUNDATION** AND STRENGTH-IN-DEPTH

FOR ALL OF YOUR FINANCE AND INSURANCE REQUIREMENTS FOR YOUR BUS OR COACH

In a complex world, sound financial and insurance support can make a big difference to your business planning, especially when thinking about your fleet.

Scania Finance Australia provides a range of flexible services to give you predictable costs and manageable risks over the entire life cycle of your vehicles.

At Scania Finance Australia vou will meet a team of transport industry specialists offering all inclusive, competitive financing and insurance solutions.

Our financial services business forms a part of the Scania Total Solution program.

Scania Finance Australia: Dedicated to helping you grow and protect your business.

For further information, please contact your local Scania Finance Australia representative:

Victoria, South Australia and Tasmania New South Wales Queensland Western Australia and Northern Territory Gerard Renton

Craig McFadyen Aaron O'Neill Adrian Frzetich

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#### **NEW IRIZAR I6S ARRIVES**

Scania chassis have underpinned several of the new fully-imported premium class IRIZAR i6S coaches that have arrived in Australia in the past 6 months.

The cosmetically-enhanced i6S builds on the success of the original i6 which has been offered in Australia for around five years. The updated styling externally is complemented by LED headlamps, and a revised entryway.

Of the early examples to arrive, Sid Fogg's and Australia Wide Coaches were the earliest adopters, along with Around Town Tours and Dysons.

"We have delivered two 6x2 and two 4x2 with Scania chassis so far, with more coming. The Sid Fogg's coach is the biggest so far, at 14.5 m long and 3.9 m high," said IRIZAR's East Coast Sales Manager, Jason Eldred. "It has an impressive road presence."



#### **AUTONOMOUS ELECTRIC BUS TEST**

Scania and Nobina, the largest public transport operator in the Nordic countries, will collaborate to commence trials of autonomous buses on regular routes in the Stockholm area in early 2020.

The technology is now sufficiently mature to initiate trials in actual bus operations on public roads, making the project one of the first of its kind in Europe with buses this size.

The project will provide a wealth of information in the further development of large autonomous buses before a full-scale introduction.

The trials will be conducted in two stages, initially without passengers before welcoming commuters onboard. Safety being a top priority throughout the trials, the buses will have a safety-driver to monitor operations and assist passengers.

The two 12 m Scania Citywide LF electric buses will connect a new residential area with a nearby metro station. The buses, with a capacity for 80 passengers (25 seated) will be in service along a new dedicated 5 km route with four stops. Initially, approximately one kilometre is planned to be driven autonomously. During the second phase of the trials, it is expected that around 300 passengers will make daily use of this service.





#### **CUSTOM HITS 100**

Custom Bus Group has begun building its 100th body, just a year after reforming and relocating to St Mary's, NSW.

The company established a new production location in a former timber yard and has hit its straps, accelerating to 100 bodies very quickly. Company sources say the 200th body should be delivered before the end of 2019.

The 100th body, a CB 80 city route bus, will ride on a Scania K 310 UB 4x2 chassis, as

part of a large order for 40 similar vehicles.

Around a third of all bodies assembled by the company in the past year have been built on Scania chassis, with similar numbers expected to roll out before the year ends.

Production at the facility is running at around three vehicles per week, but with the continual addition of more staff and the establishment of a second shift, the company is looking to increase this while maintaining quality.



A school and charter coach that is also ideal for short haul or extended touring has been launched in Australia by Scania.

> he Scania Touring is a Scania from bumper-to-bumper, giving operators only one point of contact for the whole vehicle.

Customers can select their choice of locally-provided seats, add in a toilet cubicle and myriad other personalised features such as destination boards, TV screens and school lights and signs.

A cavernous 9 m<sup>3</sup> of luggage space with an aluminium floor is provided behind pantograph doors.

The Scania Touring is a global product, built in China on a bespoke production line monitored diligently by Scania's own quality assurance teams.

Thanks to the production line build,

material and build quality is extremely high. Every part on the vehicle has a Scania part number, underlining how Scania is taking responsibility for the operator interface with regards to sourcing replacement parts.

Following the launch of the Scania Touring in Port Douglas in October 2018, orders have been flowing to Scania's Bus division, with the first vehicles delivered at the start of 2019, and more coming throughout the year.

"We have significant orders and now we're talking to the factory to provide some additional build slots for beyond the end of the year," said Jamie Atkinson, National

Sales and Contracts Manager for Victoria, SA, WA and Tasmania

"The Touring has proved more popular in Australia than we expected," he said.

"Lower running costs is a key attraction so far, especially with our Euro 6 K 360 9.0-litre engine. We're also offering 360 hp and 410 hp 13-litre engines. If you're doing extended touring or travelling with a full load of adults, the 13-litre would be the pick, just because it has more torque," he said.

"The Euro 6 engine uses SCR-only. We're the only OEM that offers Euro 6 without EGR.

"The Scania K-series chassis is very well proven and a market leader in Australia as well as many countries in Europe and around the world. The Scania engines drive through either the 8-speed Opticruise automated transmission or a ZF automatic,"

#### Jamie said.

The Scania Opticruise offers three modes: Standard, Economy and Power.

Economy mode offers the most frugal driving style, but in Standard Mode, drivers can activate up or downshifts if they feel it is necessary. As with all Scania vehicles, the in-dash Driver Support System offers tips and feedback on individual driving styles, taking into account load, terrain and speed

"The Driver Support System has been well received in the market. Drivers want to better themselves, to lift their score, especially when they can compare their scores to other drivers in the depot," Jamie said

"Combined with the onboard Scania telematics, operators can have a very clear view of how their vehicles are being driven. The system identifies clearly where money

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can be saved with some Scania Driver Training or coaching," he said.

Among the array of features attracting praise on the Scania Touring are the dual ai conditioning system that allows the driver to set his own climatic conditions separate from the occupants of the saloon; and all seats can be pre-wired for USB charging. There are also convector heaters running the length of the bus on both sides, ideal for operators based in the southern states. A further option is a stone guard which is pretty well mandatory for operators leaving

the city limits.

"The stone guard is very much an Australian market demanded option," Jamie said.

"Everyone is looking to reduce their cost per km, and Scania is focussed on helping operators to achieve that on a day-by-day basis. We have fast-moving parts on-hand to reduce vehicle off-road time, including mirrors, screens and lights, all of which have Scania part numbers.

"The Touring is very appealing for drivers, as well," Jamie said.

"The ergonomics for the driver are typically Scania. The dashboard layout has been designed in line with all other Scanias, with an easy view of all major instruments, switch gear is within easy reach and there's excellent outward visibility.

"Because the team designing the driver station are talking to the team designing the chassis integration all the way through the development process, the driver ends up with a perfect driving position.

"The Touring is very well equipped with Scania active and passive safety systems, including adaptive cruise control with a very precise radar. This assists the driver to





"Another benefit is the quiet ride. From the very first load of passengers we took in a Touring in Australia, the comments have been focussed on the interior hush. It is very impressive and will also help us to sell more of these vehicles, because a quiet ride is top of the list for many passengers," Jamie said.

"The effective noise insulation again is the product of the chassis and body engineers being from the same team and working from the computer drawings onwards to suppress noise, vibration and harshness.

"This really is a vehicle that has to be driven to be believed. But it doesn't take long to become hooked."







HHHFFFFFFFFFFFF

Luxury coach travel in Sydney has been enhanced by the arrival of the first Scania Touring.



"I have been looking at them for more than two years and waiting for Scania to get them into the country. The price point is good and the flexibility Scania has shown in order to deliver to me the exact specification I wanted, has been really impressive."

The first Scania Touring delivered to AllStarr has been fitted with 49 passenger and one guide seat, and an onboard toilet cubicle has been installed by Coachworks in Queensland.

The seats are McConnell Voyager

recliners with leather-look finish and three TV screens have been mounted down the ceiling for passenger viewing comfort.

The AllStarr Touring is powered by Scania's 5-cylinder 360 hp Euro 6-compliant engine driving through the Opticruise automated gearbox.

"One of the key advantages for me has been Scania's ownership of the total vehicle, so if I have any issues down the track there's just one point of contact. This will speed up resolution and provide good uptime for me," Toby said.

"Scania providing both the chassis and body has given me peace-of-mind. Furthermore Scania has been willing to provide not only a repair and maintenance contract for the chassis, but also a maintenance contract for the body. This is unusual, but for me a big advantage," Toby said.

"We plan to keep the Touring for seven years which is typical for our business,

which currently has five luxury specification coaches on the fleet.

"We have been running a demonstrator Touring for a few months and it has been very successful in terms of driver and passenger acceptance.

"We have been driving it in Sydney where it has attracted a lot of attention and positive comments. We service cruise ships as well as private jet-borne inbound tourists who want a 6-star experience, and that is what the Touring is delivering for us and for them.

"In addition to short distance transfers we're also going to use the Touring for longer excursions, up to seven-day touring for Australian seniors, and the extra luggage capacity will be a boon," Toby said.

"Scania's service so far has been phenomenal. Nothing has been too much trouble, and I can't believe any other OEM supplier would have been as helpful and supportive as Scania has been during the introduction of the Touring to our business,"

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Toby said.

According to Scania NSW Bus Account Manager Warren Young, the new Touring joining the AllStarr fleet will be hard to miss even in Sydney's cosmopolitan driving environment.

"The new AllStarr Scania touring is eyecatchingly liveried, finished in white with the big blue star. It'll certainly get attention.

"However, Toby's big focus was on acquiring a new cost-effective vehicle, with a low tare weight and plenty of luggage capacity both in volume and payload," Warren said.

"Toby was adamant he wanted a bumperto-bumper maintenance agreement for the vehicle which we were able to accommodate, in line with our position that we will tailormake solutions for each customer," he said. "We are confident that the AllStarr Touring will just be the first of many to ply the tourist routes around Sydney," Warren

said.







**Eggins Comfort Coaches** celebrates nine decades on the road with a fleet of new Scania school buses.

ulti-generational family-owned Eggins Comfort Coaches has begun buying Scania vehicles to support its

school and charter business.

Based in Taree, NSW, the bus operator has three new Scania-based Volgren-bodied vehicles on the road already, with four more due to be delivered during the back half of the year.

All are powered by frugal and clean 320 hp Scania 5-cylinder engines and are Euro 6 compliant.

"We're covering around 400 km per day running regional school routes from the north, the west and the south within a 120 km radius of Taree. All up our fleet of school buses transports around 3500 children daily to 34 schools in the area," said Josh Eggins (pictured right) who is running the business with his brothers, Richard and Simon. They are the fourth generation to run the family business started by Harold Eggins in 1929.

"We're celebrating 90 years on the road this year," Josh said with some pride.

The new Scanias were purchased through Bus Account Manager Warren Young from Scania Prestons, who has known the family for a long time.

"Warren has looked after us well. He's a local and he knew what we needed. With our previous body builder no longer operating, we moved to Volgren for the new buses," Josh said.

"Our drivers have been impressed with the new Scanias. I haven't heard one bad word, so they are going great. The new buses have replaced vehicles we had on the fleet for more than 20 years.

"Fuel economy has been good so far, about 27-30-litres per 100 km, and we expect it to improve.

"We're carrying a full load of kids in three-for-two seats, all belted of course, as per the seatbelt replacement programme," Josh said.

According to Warren Young, the Eggins' experience has been fairly typical for

operators switching to Scania.

"These are the company's first Scanias and we have delivered new vehicles with as little fuss as possible. The buses have been accepted into service quickly, the drivers love them and they are already delivering on their fuel, given they are still fairly new engines.

"As the buses are running school routes we are pleased that Eggins has specified Euro 6 to provide the cleanest possible exhaust emissions while taking children to and from school.

"It's all part of the way Scania is showing leadership in the shift towards a sustainable transport system," Warren said.

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# GOING LIVE

Battery-electric buses are proving themselves in inner city operation in Sweden.

Line 6 in Östersund. Sweden, is a newly established 14 km main bus route that runs from Torvalla, south of the city, through the city centre and to the newly built Brittsbo district in the north. The route is operated by Nettbuss, with electric buses from Scania.

Since Line 6 began its operations in March 2018, three electric buses have rolled 120,000 km. More than 300,000 travellers have commuted silently to and from their iobs – with zero emissions.

"In 2019, we will add another three Scania electric buses to Line 6. Our plan is to open another electric bus route at Frösön, where Östersund's Airport is located," says Anne Sörensson, Climate Coordinator and Project Manager for the electric bus project in Östersund.

"This is only the beginning of something greater," she adds.

The electric buses are an important piece of the puzzle in electrifying the entire transport sector in Östersund.

"We invested early in charging infrastructure for electric cars and have now moved to electric buses. We see electrification as an important part of Östersund's mission to be fossil fuel free in 2030. It is a very ambitious target," Anne Sörensson says.

"Sustainable transport is about moving people and goods while contributing to economic and social development without risking the environment or people's health and safety. We are approaching a tipping point, where new technology, new business models and sustainable transport are taking



off across the board," she says.

In Östersund, the transition to fully fossil fuel free transport is driven by a partnership between the municipality, companies, organisations, regional and national authorities.

Since 2015, municipalities and county councils in Sweden can seek funding from the Swedish Transport Administration to promote sustainability through urban environment agreements. The ideal application should take a holistic approach to promoting sustainable urban environments and sustainable travel.

Charging infrastructure for electric buses may be included in the city's environmental agreements if they are a part of a larger solution with other public transport facilities, such as dedicated bus routes with bus stops and signal systems.

In the first round of applications in 2015, Östersund's municipality was granted cofinancing for an electric bus line.

To find suitable vehicles, it was natural for the project group to visit the Scania headquarters in Södertälje. With close to 100 per cent of the existing city bus lines and extensive regional testing of new vehicles and solutions. Scania was already very much present in the Östersund municipality.

After seven months of operational experience, Anne Sörensson is extremely satisfied with the electric bus system, claiming that it has fulfilled all of their requirements.

"We began last winter when it was minus 30 degrees Celsius and we have operated in +30 degrees Celsius weather over the summer. The vehicles have worked flawlessly over a temperature span of 60 degrees!"

"And it has been rewarding to see how satisfied the locals are. Their only complaint is that now the old buses are too loud", adds Anne Sörensson.

Scania says uptime from the electricpowered buses is basically in line with conventional diesel buses.

All cities and operators have varying demands and that won't change just because the buses are electrically powered. However, robustness and uptime will remain as important as ever. In the long run, the total cost of operating battery electric buses will come down since there is a high degree of component sharing between battery electric and conventional buses.

This will also enable Scania to provide a wide range of different versions of electric buses, such as articulated variants and buses with different bodies.

Battery electric buses are only effective in curbing carbon emissions if the charging electricity is generated through clean energy. In Östersund, the buses are charged

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on hydroelectric power and are thereby fully fossil free.

Currently, Scania's electric buses are ideally suited to the inner city, but in suburbs and in traffic between the inner city and suburbs at present there are more efficient solutions, such as buses fuelled by natural and biogas, as well as our hybrid buses.









Opportunity charging is the first step towards a more flexible battery-powered bus future, where longer range batteries will allow electric buses free rein around cities and outer urban areas. But the current system is available here and now and provides highlypopulated areas with the benefits of zero tailpipe emissions today



for all bus bodies with Scania chassis. Scania Fleet Care was first introduced in 2014 and is now actively employed globally. "Uptime is a crucial parameter for achieving a healthy Total Operating Economy. With this extended service, transporters can rest assured that the vehicles will always be available when needed the most," Claes says.

Recently Scania delivered 140 buses for public transport use in Kristiansand, southwest of the Norwegian capital, Oslo. The fleet was equipped with Scania Fleet Care, so Scania was tasked with full responsibility for repair and maintenance of the fleet.

In addition, all of the buses can be run on biodiesel, and 70 of them have hybrid technology, making it Scania's largest single

delivery of hybrid vehicles to date. "This is an example of Scania's wide range of sustainable transport solutions," says Karin Rådström, formerly the Senior Vice President and Head of Buses and Coaches at Scania, and now the Executive Vice President and Head of Sales and Marketing for Scania CV. "We're not focusing on one solution, but many, which has helped us to fulfil the customer's requirements." The delivery includes Scania Citywide LE Suburban Hybrid, Scania Citywide LE Suburban and Scania Higer A30 buses, each in a range of specifications. All buses can run on biodiesel. The buses began their work in July 2018 and are operated by transport company Boreal Buss, on

behalf of the public transport operator

Agder Kollektivtrafikk. Boreal Buss already operates 170 Scania buses in Norway. The deal also includes a seven-

year contract for Scania's repair and maintenance programme Fleet Care.

For the bus operator, Fleet Care improves total fleet utilisation, provides better cost control and can also have a positive impact on cash flow. Scania's engineers and technicians continuously diagnose and plan preventative action, thereby minimising disruptions in the transport flow.

In Australia, the first customers are already experiencing the benefits of Fleet Care. To find out more about how Scania Fleet care can help make your buses run more efficiently, call your Scania After Sales representative, or call us on (03) 9217 3300.

# THE PURE SCANIA EXPERIENCE

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